Número de posets con n elementos

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Resumen

Si $n \in \mathbb{N}$, notaremos con $P(n)$ el conjunto de todos los posets con n elementos, con $PC(n)$ ($PNC(n)$) el conjunto de todos los posets conexos (no conexos) con n elementos, con $PNI(n)$ el conjunto de todos los posets, no isomorfos, con n elementos, con $PCNI(n)$ ($PNCNI(n)$) el conjunto de los posets conexos (no conexos), no isomorfos, con n elementos. La determinación del número de elementos de estos conjuntos es un problema abierto desde hace mucho tiempo. No se conocen fórmulas, en función de n, para $|P(n)|$, $|PNI(n)|$, $|PCNI(n)|$ y $|PNCNI(n)|$.

Hasta el presente solo se conocen los valores de $|PNI(n)|$, $|PCNI(n)|$, para $1 \leq n \leq 16$, y de $|P(n)|$, $|PC(n)|$ para $1 \leq n \leq 18$. Los mismos se indican en la sección **1**, así como la historia de la determinación de $|P(n)|$. Para $n \geq 10$ los resultados obtenidos por diferentes autores son mediante el uso de computadoras.

En la sección **2** fijamos la nomenclatura a utilizar, en la sección **3** indicamos importantes resultados de M. Erné, en la sección **4** determinamos $|P(7)|$ y utilizando algunos resultados de Erné determinamos $|P(10)|$ sin uso de computadoras, en la sección **5** interesantes resultados de R.P. Stanley y algunos resultados originales, en las secciones **6**, **7**, **8** y **10** resultados originales, y una determinación, diferente de las conocidas, de $|P(n)|$ para $1 \leq n \leq 8$, sin uso de computadoras. En la sección **9** indicamos los diagramas de Hasse de $PNI(n)$ para $1 \leq n \leq 7$, así como la cantidad de cada uno de ellos. Finalmente indicamos las referencias, que consideramos más importantes, relacionadas con este tema. Otras referencias se pueden encontrar en la bibliografía citada.

1. Resultados conocidos

n	$\lvert P(n)\rvert$	$\lvert PNI(n)\rvert$
1	1	1
2	3	2
3	19	5
4	219	16
5	4.231	63
6	130.023	318
7	6.129.859	2.045
8	431.723.379	16.999
9	44.511.042.511	183.231
10	6.611.065.248.783	2.567.284
11	1.396.281.677.105.899	46.749.427
12	414.864.951.055.853.499	1.104.891.746
13	171.850.728.381.587.059.351	33.823.827.452
14	98.484.324.257.128.207.032.183	1.338.193.159.771
15	77.567.171.020.440.688.353.049.939	68.275.077.901.156
16	83.480.529.785.490.157.813.844.256.579	44.831.306.651.195.087
17	122.152.541.250.295.322.862.941.281.269.151	
18	241.939.392.597.201.176.602.897.820.148.085.023	

n	$\lvert PC(n)\rvert$	$\lvert PCNI(n)\rvert$
1	1	1
2	2	1
3	12	3
4	146	10
5	6.060	44
6	101.642	238
7	5.106.612	1.650
8	377.403.266	14.512
9	40.299.722.580	163.341
10	6.138.497.261.882	2.360.719
11	1.320.327.172.853.172	43.944.974
12	397.571.105.288.091.506	1.055.019.099
13	166.330.355.795.371.103.700	32.664.984.238
14	96.036.130.723.851.671.469.482	1.303.143.553.205
15	76.070.282.980.382.554.147.600.692	66.900.392.672.168
16	82.226.869.197.428.315.925.408.327.266	4.413.439.778.321.689
17	120.722.306.604.121.583.767.045.993.825.620	
18	239.727.397.782.668.638.856.762.574.296.226.842	

Determinación de $\lvert P(n)\rvert$				
Referencias Bibliográficas			A	B
[2]	1948	$1 \leq n \leq 4$	$*$	
[12]	1966	$1 \leq n \leq 6$	$*$	
[9]	1966	$1 \leq n \leq 6$	$*$	
[25]	1966	$1 \leq n \leq 6$	$*$	
[34]	1966	$1 \leq n \leq 6$	$*$	
[35]	1966	$1 \leq n \leq 6$	$*$	
[23]	1967	$1 \leq n \leq 7$		$*$
[17]	1970	$1 \leq n \leq 8$		$*$
[18, 19]	1972	$1 \leq n \leq 9$	$*$	
[15]	1977	$1 \leq n \leq 11$		$*$
[4]	1978	$1 \leq n \leq 9$		$*$
[5]	1979	$1 \leq n \leq 10$		$*$
[31]	1979	$1 \leq n \leq 11$		$*$
[32]	1982	$1 \leq n \leq 12$		$*$
[33]	1985	$1 \leq n \leq 6$	$*$	
[13]	1991	$1 \leq n \leq 11$		$*$
[21]	1991	$1 \leq n \leq 14$		$*$
[22]	1993	$n = 15$		$*$
[24]	2000	$1 \leq n \leq 14$		$*$
[7]	2002	$1 \leq n \leq 18$		$*$

Columna A, sin uso de computadoras, Columna B, con uso de computadoras.

2. Preliminares

Sea $\mathbf{n} = \{1, 2, \ldots, n\}$. Si $X \in P(n)$ sea $m(X)$ el conjunto de los elementos minimales de X. Si $m \leq n$ sean

- $P(n,m) = \{X \in P(n) : \ |m(X)| = m\}$,
- $PC(n,m) = \{X \in PC(n) : \ |m(X)| = m\}$,
- $PNC(n,m) = \{X \in PNC(n) : |m(X)| = m\}$,

Para $1 \leq m \leq n$, notaremos con $PCNI(n,m)$, el conjunto de los elementos de $PC(n,m)$ que no son isomorfos, con $PNCNI(n,m)$ el conjunto de los elementos de $PNC(n,m)$ que no son isomorfos, con $PNI(n,m)$ el conjunto de los elementos de $P(n,m)$ que no son isomorfos.

Es claro que:

$$|P(n)| = \sum_{m=1}^{n} |P(n,m)|, \quad |PC(n)| = \sum_{m=1}^{n-1} |PC(n,m)|, \quad |PNC(n)| = \sum_{m=1}^{n} |PNC(n,m)|,$$

$$|PCNI(n,m)| + |PNCNI(n,m)| = |PNI(n,m)|,$$

$$|PCNI(n)| = \sum_{m=1}^{n-1} |PCNI(n,m)|, \quad |PNCNI(n)| = \sum_{m=1}^{n} |PNCNI(n,m)|,$$
$$|PNI(n)| = |PCNI(n)| + |PNCNI(n)|.$$

Brinkmann y McKay [7], en 2002 determinaron $|PC(n)|$ y $|P(n)|$ para $1 \le n \le 18$.

Dado $X \in P(n, n-1)$ existen $\binom{n}{n-1} = n$ formas de elegir el conjunto $m(X)$. Luego $|X \setminus m(X)| = 1$. Sea $X \setminus m(X) = \{a\}$ y $P_a = \{x \in m(X) : x < a\}$. Entonces $X \in PC(n, n-1)$ si y solo si $P_a = m(X)$, luego $|PC(n, n-1)| = \binom{n}{n-1} = n$. Además $X \in PNC(n, n-1)$ si y solo si $1 \le |P_a| \le n-2$ y por lo tanto $|PNC(n, n-1)| = n \sum_{i=1}^{n-2} \binom{n-1}{i} = n(2^{n-1} - 2)$.

Por lo tanto, si $n \ge 2$

$$|PC(n, n-1)| = n. \tag{2.1}$$
$$|PNC(n, n-1)| = \binom{n}{n-1}(2^{n-1} - 2). \tag{2.2}$$

Luego

$$|P(n, n-1)| = \binom{n}{n-1} + \binom{n}{n-1}(2^{n-1} - 2) = \binom{n}{n-1}(2^{n-1} - 1).$$

Es claro que:

$$|PC(n, n)| = 0 \ \text{ y } \ |P(n, n)| = |PNC(n, n)| = 1. \tag{2.3}$$

Es bien conocido ([1], [2]) que existe una correspondencia biunívoca entre el conjunto $P(n)$ y el conjunto $T_0(n)$ de todas las topologías T_0 que se pueden definir sobre $\mathbf{n}$. A los efectos de hacer lo más autocontenido posible, los resultados de estas notas, vamos a indicar una demostración de este resultado.

Dado un poset $(\mathbf{n}, \le)$ y $x \in \mathbf{n}$ sea $C(x) = \{y \in \mathbf{n} : y \le x\}$ luego $x \in C(x)$ y si $Y \subseteq \mathbf{n}$ sea $C(Y) = \bigcup_{y \in Y} C(y)$. Entonces C es un operador de clausura en $\mathbf{n}$.

En efecto,

C1) $C(\emptyset) = \emptyset$.

C2) $Y \subseteq C(Y)$. En efecto, si $y \in Y$ entonces $y \in C(y) \subseteq C(Y)$.

C3) $C(C(Y)) = C(Y)$. Por C2) $C(Y) \subseteq C(C(Y))$. Sea $z \in C(C(Y))$ luego $z \in C(w)$ para algún $w \in C(Y)$, esto es (1) $z \le w$ con $w \in C(y)$ para algún $y \in Y$, esto es (2) $w \le y$. De (1) y (2) resulta que $z \le y$ con $y \in Y$. Luego $z \in C(Y)$.

C4) $C(Y \cup Z) = C(Y) \cup C(Z)$.
Probemos en primer lugar que: si (1) $Y \subseteq Z$ entonces $C(Y) \subseteq C(Z)$. En efecto, si $a \in C(Y)$ entonces $a \in C(y)$ para algún $y \in Y$, luego por (1) $a \in C(y)$ para algún $y \in Z$, luego $a \in C(Z)$.
Como $Y \subseteq Y \cup Z$ y $Z \subseteq Y \cup Z$, entonces $C(Y) \subseteq C(Y \cup Z)$ y $C(Z) \subseteq C(Y \cup Z)$, luego $C(Y) \cup C(Z) \subseteq C(Y \cup Z)$.
Si $w \in C(Y \cup Z)$ entonces $w \in C(b)$ para algún $b \in Y \cup Z$. Si $b \in Y$ entonces $w \in C(Y)$ y si $b \in Z$ entonces $w \in C(Z)$, luego $w \in C(Y) \cup C(Z)$.

Luego $(\mathbf{n}, C)$ es un espacio topológico, diremos que es el espacio topológico generado por el poset $(\mathbf{n}, \leq)$. Es bien conocido que el conjunto de los cerrados de un espacio topológico, es un reticulado distributivo acotado. Notaremos con $RB(\mathbf{n})$ al conjunto de los cerrados de $(\mathbf{n}, C)$.

Veamos que $(\mathbf{n}, C)$ es T_0, para ello basta ver que si $C(y) = C(z)$ entonces $y = z$. Como $y \in C(y) = C(z)$ entonces $y \leq z$ y como $z \in C(z) = C(y)$ entonces $z \leq y$ luego $z = y$.
Si $(\mathbf{n}, \leq) \in P(n)$ pongamos $\alpha((\mathbf{n}, \leq)) = (\mathbf{n}, C)$, luego $\alpha : P(n) \to T_0(n)$.

Si $(\mathbf{n}, \leq_1)$, $(\mathbf{n}, \leq_2) \in P(n)$ son diferentes, entonces existe por lo menos un par $x, y \in \mathbf{n}$ tal que por ejemplo $x \leq_1 y$ y $x \not\leq_2 y$. Luego $x \in C_1(y)$ y $x \notin C_2(y)$, por lo tanto las topologías son diferentes, esto es $\alpha((\mathbf{n}, \leq_1)) \neq \alpha((\mathbf{n}, \leq_2))$

Sea $(\mathbf{n}, C) \in T_0(n)$, definamos $y \sqsubseteq z$ si y solo si $y \in C(z)$.

O1) $y \sqsubseteq y$, dado que $y \in C(y)$.

O2) Si $y \sqsubseteq z$ y $z \sqsubseteq y$, entonces $y = z$. Por hipótesis $y \in C(z)$ y $z \in C(y)$, luego $C(y) \subseteq C(C(z)) = C(z)$ y $C(z) \subseteq C(C(y)) = C(y)$ luego $C(y) = C(z)$ y como el espacio topológico es T_0, $y = z$.

O3) Si $y \sqsubseteq z$ y $z \sqsubseteq w$ entonces $y \sqsubseteq w$. Por hipótesis (1) $y \in C(z)$ y (2) $z \in C(w)$. De (2) resulta (3) $C(z) \subseteq C(C(w)) = C(w)$. De (1) y (3) $y \in C(w)$ luego $y \sqsubseteq w$.

Luego $(\mathbf{n}, \sqsubseteq)$ es un poset. Diremos que $(\mathbf{n}, \sqsubseteq)$ es el poset generado por el espacio topológico $(\mathbf{n}, C)$. Notemos con $(\mathbf{n}, C^{(\sqsubseteq)})$ al espacio topológico que se obtiene a partir de $\sqsubseteq$ y probemos que $\alpha((\mathbf{n}, \sqsubseteq)) = (\mathbf{n}, C)$, esto es que $(\mathbf{n}, C^{(\sqsubseteq)}) = (\mathbf{n}, C)$.
Sea Y un cerrado de $(\mathbf{n}, C^{(\sqsubseteq)})$, esto es, $C^{(\sqsubseteq)}(Y) = Y$. Sabemos que $Y \subseteq C(Y)$. Sea $z \in C(Y) = \bigcup\limits_{y \in Y} C(y)$, luego $z \in C(y)$ para algún $y \in Y$, por lo tanto $z \sqsubseteq y$ y en consecuencia $z \in C^{(\sqsubseteq)}(Y) = Y$.

Recíprocamente sea Y es un cerrado de $(\mathbf{n}, C)$, esto es, $C(Y) = Y$. Sabemos que $Y \subseteq C^{(\sqsubseteq)}(Y)$. Sea $z \in C^{(\sqsubseteq)}(Y)$, luego $z \in C^{(\sqsubseteq)}(y)$ para algún $y \in Y$ esto es $z \sqsubseteq y$ con $y \in Y$, entonces por definición $z \in C(y) \subseteq C(Y) = Y$.

Un espacio topológico E se dice conexo si los los únicos conjuntos abiertos (cerrados) son $\emptyset$ y E.

Si $(\mathbf{n}, \leq)$ es no conexo, esto es (1) $\mathbf{n} = X_1 + X_2$ con $X_1 \cap X_2 = \emptyset$, $X_1 \cup X_2 = \mathbf{n}$, $X_1, X_2 \neq \emptyset, \mathbf{n}$. Sea $y \in C(X_1)$ luego $y \in C(x)$ con $x \in X_1$ por lo tanto $y \leq x$, con $x \in X_1$, luego por (1) $y \in X_1$ y por lo tanto $C(X_1) = X_1$, luego $(\mathbf{n}, C)$ es no conexo.
Supongamos que $(\mathbf{n}, C)$ es no conexo, luego existe un abierto y cerrado $X_1 \subset \mathbf{n}$, $X_1 \neq \emptyset, \mathbf{n}$, luego $X_2 = \mathbf{n} \backslash X_1$ es abierto y cerrado. Por lo tanto $X_1 \cap X_2 = \emptyset$, $X_1 \cup X_2 = \mathbf{n}$, $C(X_1) = X_1$ y $C(X_2) = X_2$. Sean $x_1 \in X_1$ y $x_2 \in X_2$, si $x_1 \leq x_2$ entonces $x_1 \in C(x_2) \subseteq C(X_2) = X_2$, absurdo y si $x_2 \leq x_1$ entonces $x_2 \in C(x_1) \subseteq C(X_1) = X_1$, absurdo. Luego $\mathbf{n} = X_1 + X_2$ y $(\mathbf{n}, \leq)$ es no conexo. Como α es una biyección entonces $(\mathbf{n}, \leq)$ es no conexo (conexo) si y solo si $(\mathbf{n}, C)$ es no conexo (conexo).

Si $(X, \leq)$ es un poset y $f \in X$ notaremos $(f] = \{x \in X : x \leq f\}$ y $[f) = \{x \in X : f \leq x\}$. L. Monteiro en 1990, obtuvo el siguiente resultado, que recién fue publicado en 2001, [29]. Si X es un poset finito y $f \in X$ entonces:

$$|RB(X)| = |RB(X \setminus (f])| + |RB(X \setminus [f))|.$$

Observemos que si X tiene primer elemento entonces $|RB(X)| = |RB(X \setminus (f]))| + 1$ y que si X tiene último elemento entonces $|RB(X)| = 1 + |RB(X \setminus [f)|$. Es bien conocido que $|RB(X)|$ es igual al número de anticadenas del poset X.
Si $1 \leq j \leq n$, notaremos con $P^{(j)}(n)$, el conjunto de todos los elementos $X \in P(n)$ tales que $|RB(X)| = j$. Si conocemos $|P^{(j)}(k)|$ para $1 \leq j \leq 2^k$, $1 \leq k \leq n-1$, entonces dado el diagrama de Hasse de $X \in P(n)$, por el resultado precedente, sabemos determinar a que $P^{(j)}(n)$ pertenece X. Es claro que si X^* es el poset dual de X entonces $|RB(X)| = |RB(X^*)|$. Notaremos con $PC^{(j)}(n)$ $(PNC^{(j)}(n))$, el conjunto de todos los elementos $X \in PC(n)$ $(X \in PNC(n))$ tales que $|RB(X)| = j$. Si $j < 2^n$ es primo entonces $|PNC^{(j)}(n)| = 0$. En efecto, si existe $X \in PNC^{(j)}(n)$ entonces $X = X_1 + X_2$ y por lo tanto $j = |RB(X)| = |RB(X_1)| \times |RB(X_2)|$, absurdo.

Si X es un poset finito, notaremos con $Aut(X)$ el conjunto de todos los automorfismos de orden de X. Es bien conocido, ver por ejemplo ([24], página 337) que si X es un poset y $|X| = n$ entonces el número de posets isomorfos a X es igual a $\dfrac{n!}{|Aut(X)|}$.

3. Los resultados de M. Erné

En 1981, M. Erné [20] mediante una sofisticada demostración prueba que, si $n \geq 2$:

$$|P(n,1)| = n|P(n-1)| = |PC(n,1)|. \tag{3.1}$$

$$|P(n,2)| = \binom{n}{2}|P(n-1)|. \tag{3.2}$$

La fórmula 3.1 se puede probar de un modo mucho más sencillo que la indicada por Erné, como el mismo lo reconoce en [21]. En efecto, para $1 \leq i \leq n$, sea $P_{(i)}(n) = \{X \in P(n,1) : m(X) = \{i\}\}$. Como $\{P_{(i)}(n)\}_{i=1}^n$ es una n-partición de $P(n,1)$ entonces $|P(n,1)| = \sum\limits_{i=1}^{n} |P_{(i)}(n)|$.
Es claro que $|P(n,1)| = |PC(n,1)|$ y que $|P_{(i)}(n)| = |P(n-1)|$ para $1 \leq i \leq n$, luego:

$$|P(n,1)| = \sum_{i=1}^{n} |P_{(i)}(n)| = \sum_{i=1}^{n} |P(n-1)| = n|P(n-1)|.$$

Erné denota con $T_0(n,j)$ el número de topologías T_0 con j abiertos, o lo que lo mismo con j cerrados, que se pueden definir sobre $\mathbf{n}$ y con $T_0(n)$ el número de topologías T_0 que se pueden definir sobre $\mathbf{n}$. Es claro que $T_0(n,j) = |P^{(j)}(n)|$. Es bien conocido que el número de conjuntos cerrados de un espacio topológico T_0 con n puntos varía entre $n+1$ y 2^n, ([20], página 128). Luego

$$|P^{(j)}(n)| = 0, \text{ para } 1 \leq j \leq n, \text{ y } j \geq 2^n + 1. \tag{3.3}$$

Por lo tanto

$$|P(n)| = \sum_{j=n+1}^{2^n} |P^{(j)}(n)|.$$

Erné [20] determina los números $T_0(n, j) = |P^{(j)}(n)|$ para $1 \leq n \leq 6$, $1 \leq j \leq 2^n$, cuyas tablas se indican más adelante y por lo tanto $|P(n)|$ para $1 \leq n \leq 6$. Es claro que $|P^{(2^n)}(n)| = 1 = |PNI(n, n)|$. Para determinar $|P(n)|$ para $2 \leq n \leq 9$, Erné [20] define, para $n \in \mathbb{N}$:

$$\tilde{P}^{(j)}(n) = \sum_{r=0}^{n} \binom{n}{r} |P^{(j)}(n-r)|(-j)^r, \quad 1 \leq j \leq 2^n. \tag{3.4}$$

Es claro que

$$|P^{(1)}(0)| = 1 \ \text{ y } \ |P^{(1)}(n)| = 0, \ \text{ para } \ n \geq 1, \tag{3.5}$$

luego

$$\tilde{P}^{(1)}(n) = \sum_{r=0}^{n} \binom{n}{r} |P^{(1)}(n-r)|(-1)^r$$

luego por (3.5) tenemos que:

$$\tilde{P}^{(1)}(n) = \binom{n}{n} |P^{(1)}(0)|(-1)^n$$

por lo tanto $\tilde{P}^{(1)}(n) = 1$ si n es par y $\tilde{P}^{(1)}(n) = -1$ si n es impar.
Por (3.3) $|P^{(j)}(n-1)| = 0$ para $j \geq 2^{n-1} + 1$ entonces como $2^{n-1} + 1 > 2^{n-2} + 1 > \cdots > 2^1 + 1 > 2^0 + 1$ tenemos $|P^{(j)}(n-r)| = 0$ para $1 \leq r \leq n$ y $j \geq 2^{n-1} + 1$ luego

$$\tilde{P}^{(j)}(n) = |P^{(j)}(n)| \ \text{ para } \ j \geq 2^{n-1} + 1.$$

Por el Lema 5.1 de la sección **5**: $\tilde{P}^{(2^{n-1})}(n) = |P^{(2^{n-1})}(n)| - n|P^{(2^{n-1})}(n-1)|2^{n-1} = (n-2)V_n^3 - n(2^{n-1}) = n((n-2)^2(n-1) - 2^{n-1})$.

Observemos que si $n \geq 4$ y $|P^{(j)}(n-1)| = 0$, para $2^{n-2} < j \leq 2^{n-1} - 1$ entonces $|P^{(j)}(k)| = 0$ para $k \leq n-1$ luego por (3.4) $\tilde{P}^{(j)}(n) = |P^{(j)}(n)|$.

Erné prueba que:

$$|P(n)| = \sum_{m=1}^{n} \binom{n}{m} E(n, m), \ \text{ donde } \ E(n, m) = \sum_{j=1}^{2^{n-m}} \tilde{P}^{(j)}(n-m)\, j^m. \tag{3.6}$$

$$E(n, 1) = E(n, 2) = |P(n-1)|. \tag{3.7}$$

Observemos que

$$|P(n, m)| = \binom{n}{m} E(n, m), \ E(n, n-1) = 2^{n-1} - 1, \ E(n, n) = 1.$$

Erné obtiene las siguientes tablas:

Tabla 3.1										
	$\lvert P^{(j)}(n)\rvert$					$\tilde{P}^{(j)}(n)$				
	n					n				
j	1	2	3	4	5	1	2	3	4	5
1	0	0	0	0	0	−1	1	−1	1	−1
2	1	0	0	0	0	1	−4	12	−32	80
3		2	0	0	0		2	−18	108	−540
4		1	6	0	0		1	−6	0	320
5			6	24	0			6	−96	900
6			6	36	120			6	−108	1.200
7			0	54	240			0	54	−1.650
8			1	48	450			1	16	−830
9				20	600				20	−300
10				24	660				24	−540
11				0	500				0	500
12				12	540				12	−180
13				0	240				0	240
14				0	390				0	390
15				0	120				0	120
16				1	180				1	100
17					10					10
18					100					100
19					0					0
20					60					60
21 a 23					0					0
24					20					20
25 a 31					0					0
32					1					1

Tabla 3.2					
$n = 6$					
j	$\|P^{(j)}(n)\|$	$\tilde{P}^{(j)}(n)$	j	$\|P^{(j)}(n)\|$	$\tilde{P}^{(j)}(n)$
1	0	1	22	4.800	4.800
2	0	-192	23	720	720
3	0	2.430	24	3.600	720
4	0	-3.840	25	600	600
5	0	-6.000	26	1.680	1.680
6	0	-10.800	27	360	360
7	720	30.330	28	1.530	1.530
8	1.800	16.040	29	0	0
9	3.960	-4.140	30	720	720
10	6.570	2.970	31	0	0
11	9.480	-23.520	32	480	288
12	11.520	-1.440	33	12	12
13	11.760	-6.960	34	60	60
14	12.960	-19.800	35	0	0
15	10.820	20	36	300	300
16	12.240	-1.200	37 a 39	0	0
17	8.280	7.260	40	120	120
18	10.290	-510	41 a 47	0	0
19	4.110	4.110	48	30	30
20	7.080	-120	49 a 63	0	0
21	3.420	3.420	64	1	1

A partir de las tablas precedentes Erné obtiene:

$E(n,j)$									
	n								
j	1	2	3	4	5	6	7	8	9
1	1	1	3	19	219	4.231	130.023	6.129.859	431.723.379
2		1	3	19	219	4.231	130.023	6.129.859	431.723.379
3			1	7	87	1.783	57.459	2.816.707	204.959.247
4				1	15	355	12.819	689.047	54.097.935
5					1	31	1.383	88.039	7.932.819
6						1	63	5.299	598.899
7							1	127	20.247
8								1	255
9									1

y por lo tanto, ver (3.6) determina $|P(n)|$, para $1 \leq n \leq 9$.

A partir de los diagramas de Hasse de $P(n)$ para $1 \leq n \leq 6$ que se encuentran en la sección **9**, podemos indicar más detalles sobre las tablas de Erné:

Tabla 3.1(A)						
j	$\|PC^{(j)}(1)\|$	$\|PNC^{(j)}(1)\|$	$\|PC^{(j)}(2)\|$	$\|PNC^{(j)}(2)\|$	$\|PC^{(j)}(3)\|$	$\|PNC^{(j)}(3)\|$
1	0	0	0	0	0	0
2	1	0	0	0	0	0
3			2	0	0	0
4			0	1	6	0
5					6	0
6					0	6
7					0	0
8					0	1

Luego $|PC(1)| = 1$, $|PNC(1)| = 0$, $|PC(2)| = 2$, $|PNC(2)| = 1$, $|PC(3)| = 12$, $|PNC(3)| = 7$.

Tabla 3.1(B)				
j	$\|PC^{(j)}(4)\|$	$\|PNC^{(j)}(4)\|$	$\|PC^{(j)}(5)\|$	$\|PNC^{(j)}(5)\|$
1 a 4	0	0	0	0
5	24	0	0	0
6	36	0	120	0
7	54	0	240	0
8	24	24	450	0
9	8	12	600	0
10	0	24	540	120
11	0	0	500	0
12	0	12	240	300
13	0	0	240	0
14	0	0	120	270
15	0	0	0	120
16	0	1	0	180
17			10	0
18			0	100
19			0	0
20			0	60
21 a 23			0	0
24			0	20
25 a 31			0	0
32			0	1

Luego $|PC(4)| = 146$, $|PNC(4)| = 73$, $|PC(5)| = 3.060$, $|PNC(5)| = 1.171$.

Tabla 3.2(A)					
j	$\|PC^{(j)}(6)\|$	$\|PNC^{(j)}(6)\|$	j	$\|PC^{(j)}(6)\|$	$\|PNC^{(j)}(6)\|$
1	0	0	22	1.800	3.000
2	0	0	23	720	0
3	0	0	24	180	3.420
4	0	0	25	240	360
5	0	0	26	240	1.440
6	0	0	27	0	360
7	720	0	28	0	1.530
8	1.800	0	29	0	0
9	3.960	0	30	0	720
10	6.570	0	31	0	0
11	9.480	0	32	0	480
12	10.800	720	33	12	0
13	11.760	0	34	0	60
14	11.520	1.440	35	0	0
15	10.100	720	36	0	300
16	9.180	3.060	37 a 39	0	0
17	8.280	0	40	0	120
18	5.610	4.680	41 a 47	0	0
19	4.110	0	48	0	30
20	2.760	4.320	49 a 63	0	0
21	1.800	1.620	64	0	1

Luego $|PC(6)| = 101.642$, $|PNC(6)| = 28.381$.

4. $|PC^{(j)}(7)|$, $|PNC^{(j)}(7)|$, para $1 \leq j \leq 128$.

Los valores que se indican a continuación se obtienen a partir de los diagramas de Hasse de $P(7)$ que se encuentran en la sección **9**.

	$\|P(7)\|$			
j	$\|PC^{(j)}(7)\|$	$\|PNC^{(j)}(7)\|$	$\|P^{(j)}(7)\|$	$\tilde{P}^{(j)}(7)$
1	0	0	0	-1
2	0	0	0	448
3	0	0	0	-10.206
4	0	0	0	32.256
5	0	0	0	26.250
6	0	0	0	90.720
7	0	0	0	-436.590
8	5.040	0	5.040	-207.760
9	15.120	0	15.120	275.940
10	37.800	0	37.800	123.900
11	73.080	0	73.080	613.620
12	123.900	0	123.900	63.420
13	183.960	0	183.960	-34.440
14	240.030	5.040	245.070	580.230
15	288.120	0	288.120	-280.980
16	337.680	12.600	350.280	-196.280
17	355.740	0	355.740	-568.890
18	381.780	32.760	414.540	-201.600
19	381.360	0	381.360	-165.270
20	379.890	51.030	430.920	-56.280
21	317.940	10.080	328.020	-174.720
22	335.580	66.360	401.940	-337.260
23	290.710	0	290.710	174.790
24	241.920	104.580	346.500	-16.380
25	204.120	5.040	209.160	104.160
26	210.420	82.320	292.740	-13.020
27	125.160	25.200	150.360	82.320
28	135.240	97.020	232.260	-67.620
29	95.760	0	95.760	95.760
30	86.520	105.980	192.500	41.300
31	67.200	0	67.200	67.200
32	56.700	81.270	137.970	51.954
33	29.400	21.000	50.400	47.628
34	42.126	57.960	100.086	85.806
35	9.282	11.340	20.622	20.622
36	16.380	73.710	90.090	14.490
37	10.080	0	10.080	10.080
PARCIAL	5.078.038	843.290	5.921.328	***

	$\|P(7)\|$			
j	$\|PC^{(j)}(7)\|$	$\|PNC^{(j)}(7)\|$	$\|P^{(j)}(7)\|$	$\tilde{P}^{(j)}(7)$
38	13.440	28.770	42.210	42.210
39	2.520	10.080	12.600	12.600
40	3.780	41.580	45.360	11.760
41	2.940	0	2.940	2.940
42	2.520	28.980	31.500	31.500
43	1.680	0	1.680	1.680
44	840	23.100	23.940	23.940
45	0	4.200	4.200	4.200
46	0	5.040	5.040	5.040
47	0	0	0	0
48	0	15.120	15.120	5.040
49	420	0	420	420
50	420	4.200	4.620	4.620
51	0	420	420	420
52	0	6.720	6.720	6.720
53	0	0	0	0
54	0	2.520	2.520	2.520
55	0	0	0	0
56	0	4.410	4.410	4.410
57 a 59	0	0	0	0
60	0	2.520	2.520	2.520
61 a 63	0	0	0	0
64	0	1.050	1.050	602
65	14	0	14	14
66	0	84	84	84
67	0	0	0	0
68	0	210	210	210
69 a 71	0	0	0	0
72	0	700	700	700
73 a 79	0	0	0	0
80	0	210	210	210
81 a 95	0	0	0	0
96	0	42	42	42
97 a 127	0	0	0	0
128	0	1	1	1
PARCIAL	28.574	179.957	208.531	***
TOTAL	5.106.612	1.023.247	6.129.859	***

$E(10,1) = |P(9)| = E(10,2)$, $E(10,10) = 1$. Por las tablas precedentes y la fórmula (3.6) de Erné, obtenemos $E(10,m)$ para $3 \leq m \leq 9$.

$E(10,1) =$	44.511.042.511	$E(10,2) =$	44.511.042.511
$E(10,3) =$	21.724.257.583	$E(10,4) =$	6.110.970.115
$E(10,5) =$	1.004.241.331	$E(10,6) =$	91.323.031
$E(10,7) =$	4.109.383	$E(10,8) =$	77.635
$E(10,9) =$	511	$E(10,10) =$	1

Luego:

$$|P(10)| = \sum_{j=1}^{10} \binom{10}{j} E(10,j) = 6.611.065.248.783$$

que coincide con los resultados, obtenidos vía computadoras, en [5], [31, 32], [33], [13], [21], [24], [7].

5. Los resultados de R.P. Stanley

Lema 5.1 ([38], página 78). *Si $n \geq 5$:*

(a) $|P^{(7\,2^{n-4})}(n)| = \frac{9}{4} V_n^4 + V_n^5$,

(b) $|P^{(15\,2^{n-5})}(n)| = V_n^5$,

(c) $|P^{(2^{n-1})}(n)| = V_n^3 + V_n^4 = (n-2)V_n^3$,

(d) $|P^{(17\,2^{n-5})}(n)| = \frac{1}{12} V_n^5$,

(e) $|P^{(9\,2^{n-4})}(n)| = \frac{5}{6} V_n^4$,

(f) $|P^{(5\,2^{n-3})}(n)| = V_n^3$,

(g) $|P^{(3\,2^{n-2})}(n)| = V_n^2 = n(n-1)$,

(h) $|P^{(2^n)}(n)| = 1$.

Lema 5.2 ([38], página 78). *Si $n \geq 6$*

$$|P^{(2^{n-1}+2^{n-m})}(n)| = \frac{2\,V_n^m}{(m-1)!}, \text{ para } 6 \leq m \leq n.$$

Corolario 5.1 *Si $n \geq 6$ entonces $|P^{(2^{n-1}+1)}(n)| = 2n$ y $|P^{(2^{n-1}+2)}(n)| = 2(n-1)n$.*

Dem. Por el Lema 5.2, si $m = n$ entonces $|P^{(2^{n-1}+1)}(n)| = \frac{2\,V_n^n}{(n-1)!} = \frac{2n!}{(n-1)!} = 2n$ y si $m = n-1$ entonces $|P^{(2^{n-1}+2)}(n)| = \frac{2\,V_n^{n-1}}{(n-2)!} = 2(n-1)n$. □

Stanley indica además que si $j \in \mathbb{N}$ y $j < 7\,2^{n-4}$ pueden existir elementos en $P^{(j)}(n)$ y

Lema 5.3 *Si $n \geq 5$, $j \in \mathbb{N}$, $j > 7\,2^{n-4}$ entonces:*

(a) $P^{(j)}(n) = \emptyset$, para $j \in [7\,2^{n-4} + 1,\ 15\,2^{n-5} - 1]$,

(b) $P^{(j)}(n) = \emptyset$, para $j \in [15\ 2^{n-5}+1,\ 2^{n-1}-1]$,

(c) $P^{(j)}(n) = \emptyset$, para $j \in [17\ 2^{n-5}+1,\ 9\ 2^{n-4}-1]$,

(d) $P^{(j)}(n) = \emptyset$, para $j \in [9\ 2^{n-4}+1,\ 5\ 2^{n-3}-1]$,

(e) $P^{(j)}(n) = \emptyset$, para $j \in [5\ 2^{n-3}+1,\ 3\ 2^{n-2}-1]$,

(f) $P^{(j)}(n) = \emptyset$, para $j \in [3\ 2^{n-2}+1,\ 2^{n}-1]$. (ver también [36], [39])

Lema 5.4 ([38], página 79), ([8], página 287), ([21], página 256). *Si* $n \geq 2$*:*

$$|P^{(n+1)}(n)| = n!,\quad |P^{(n+2)}(n)| = \frac{(n-1)n!}{2},\quad |P^{(n+3)}(n)| = \frac{(n-2)(n+5)n!}{8}.$$

Lema 5.5 ([21], página 256). *Si* $n \geq 3$, $|P^{(n+4)}(n)| = \dfrac{(n-3)(n^2+15\,n+20)n!}{48}$.

Vamos a indicar un nuevo resultado. Por las tablas indicadas en la sección **3** sabemos que si $1 \leq n \leq 5$ y $j \geq 2^{n-1}+2$ entonces $|PC^{(j)}(n)| = 0$.

Lema 5.6 *Si* $n \geq 6$ *y* $j \geq 2^{n-1}+2$ *entonces* $|PC^{(j)}(n)| = 0$.

Dem. Supongamos que existe $X \in PC^{(j)}(n)$ con $j \geq 2^{n-1}+2$, esto es, X es conexo y $2^{n-1}+2 \leq |RB(X)|$.
Sea $m \in m(X)$, como $n \geq 6$ entonces $|X\backslash(m]| = n-1 \geq 5$. Luego por el lema 5.3 (f), $|RB(X\backslash(m])| = 2^{n-1}$ ó $|RB(X\backslash(m])| \leq 3\,2^{n-3}$.

Si $|RB(X\backslash(m])| = 2^{n-1}$, como por el Lema 5.1 (h), $|P^{(2^{n-1})}(n-1)| = 1$, entonces $X\backslash(m]$ es una anticadena con $n-1$ elementos y por ser X conexo resulta que m es primer elemento, de donde

$$2^{n-1}+2 \leq |RB(X)| = |RB(X\backslash(m])| + |RB(X\backslash[m))| \leq 2^{n-1}+1$$

absurdo.
Luego $|RB(X\backslash(m])| \leq 3\,2^{n-3}$ y por lo tanto

$$2^{n-1}+2 \leq |RB(X)| = |RB(X\backslash(m])| + |RB(X\backslash[m))| \leq 3\,2^{n-3} + |RB(X\backslash[m))|$$

$$2^{n-3}+2 = 2^{n-1}+2-3\,2^{n-3} \leq |RB(X\backslash[m))|$$

Como X es conexo entonces $|[m)| \neq 1$.
Si $|[m)| \geq 3$ entonces $|X\backslash[m)| \leq n-3$, luego

$$2^{n-3}+2 \leq |RB(X\backslash[m))| \leq 2^{n-3}$$

absurdo.
Luego $|[m)| = 2$, esto es, (1) $[m) = \{m, u\}$, con $m < u$, u elemento maximal de X.
Como $|X\backslash[u)| = n-1 \geq 5$, si $|RB(X\backslash[u))| = 2^{n-1}$ entonces $X\backslash[u)$ es una anticadena con $n-1$ elementos y como X es conexo resulta que u es último elemento de X, de donde

$$2^{n-1}+2 \leq |RB(X)| = |RB(X\backslash[u))| + |RB(X\backslash(u])| \leq 2^{n-1}+1$$

absurdo.
Por lo tanto $|RB(X\backslash[u))| \leq 3\,2^{n-3}$, de donde

$$2^{n-1}+2 \leq |RB(X)| = |RB(X\backslash(u])| + |RB(X\backslash[u))| \leq |RB(X\backslash(u])| + 3\,2^{n-3}$$

entonces

$$2^{n-3}+2 \leq |RB(X\backslash(u])|$$

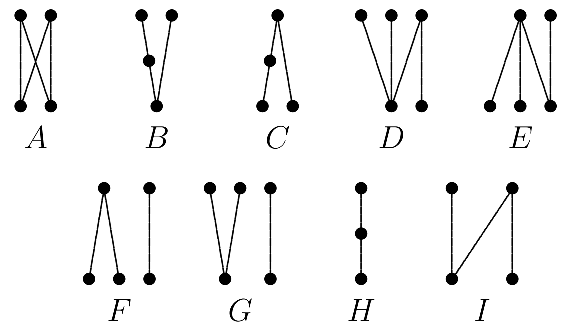
Por (1), $|(u]| \neq 1$ y como X es conexo $|(u]| \neq 2$. Luego $|(u]| \geq 3$, de donde resulta que $|RB(X\backslash(u])| \leq 2^{n-3}$ y por lo tanto

$$2^{n-3}+2 \leq |RB(X\backslash(u])| \leq 2^{n-3}$$

absurdo.

□

Sean $A, B, C, D, E, F, G, H, I$ los posets cuyos diagramas se indican a continuación:



Por lo indicado en la sección 9, sabemos que:

Poset X	$\|RB(X)\|$	Número de posets isomorfos a X
A	7	6
B	7	24
C	7	24
D	14	60
E	14	60
F	15	60
G	15	60
H	4	6
I	8	24

Lema 5.7 *Si* $n \geq 6$, $|P^{(7\,2^{n-4})}(n)| = |PNC^{(7\,2^{n-4})}(n)|$.

Dem. Si $X = Y + Z \in P(n)$ donde Y es isomorfo a A y Z es una anticadena con $n-4$ elementos $|RB(X)| = |RB(Y)||RB(Z)| = 7\,2^{n-4}$ y existen $6\,C_n^4$ posets isomorfos a él.
Si $X = Y + Z \in P(n)$ donde Y es isomorfo a B ó C y Z es una anticadena con $n-4$ elementos $|RB(X)| = |RB(Y)||RB(Z)| = 7\,2^{n-4}$ y existen $24\,C_n^4 = V_n^4$ posets isomorfos a cada uno de ellos.

Si $X = Y + Z \in P(n)$ donde Y es isomorfo a D ó E y Z es una anticadena con $n-5$ elementos $|RB(X)| = |RB(Y)||RB(Z)| = 14\ 2^{n-5} = 7\ 2^{n-4}$ y existen $60\ C_n^5$ posets isomorfos a cada uno de ellos.
Luego $\frac{9}{4}V_n^4 + V_n^5 = 6\ C_n^4 + 2\ V_n^4 + 2\ C_n^5\ 60 \leq |PNC^{(7\,2^{n-4})}(n)|$.
Como $|PNC^{(7\,2^{n-4})}(n)| \leq |P^{(7\,2^{n-4})}(n)|$ y por el Lema 5.1 (a), $|P^{(7\,2^{n-4})}(n)| = \frac{9}{4}V_n^4 + V_n^5$, entonces

$$|PNC^{(7\,2^{n-4})}(n)| = |P^{(7\,2^{n-4})}(n)| = \frac{9}{4}V_n^4 + V_n^5 \text{ y } |PC^{(7\,2^{n-4})}(n)| = 0.$$

□

Lema 5.8 *Si* $n \geq 6$, $|P^{(15\,2^{n-5})}(n)| = |PNC^{(15\,2^{n-5})}(n)|$.

Dem. Si $X = Y + Z \in P(n)$ donde Y es isomorfo a F ó G y Z es una anticadena con $n-5$ elementos $|RB(X)| = |RB(Y)||RB(Z)| = 15\ 2^{n-5}$ y existen $60\,C_n^5$ posets isomorfos a cada uno de ellos.
Luego $V_n^5 = 2(60\ C_n^5) \leq |PNC^{(15\,2^{n-5})}(n)|$. Como $|PNC^{(15\,2^{n-5})}(n)| \leq |P^{(15\,2^{n-5})}(n)|$ y por el Lema 5.1 (b), $|P^{(15\,2^{n-5})}(n)| = V_n^5$, entonces

$$|PNC^{(15\,2^{n-5})}(n)| = |P^{(15\,2^{n-5})}(n)| = V_n^5 \text{ y } |PC^{(15\,2^{n-5})}(n)| = 0.$$

□

Lema 5.9 *Si* $n \geq 5$, $|P^{(2^{n-1})}(n)| = |PNC^{(2^{n-1})}(n)|$.

Dem. Si $X = Y + Z \in P(n)$ donde Y es isomorfo a H y Z es una anticadena con $n-3$ elementos $|RB(X)| = |RB(Y)||RB(Z)| = 4\ 2^{n-3} = 2^{n-1}$ y existen $6\,C_n^3 = V_n^3$ posets isomorfos a él.
Si $X = Y + Z \in P(n)$ donde Y es isomorfo a I y Z es una anticadena con $n-4$ elementos $|RB(X)| = |RB(Y)||RB(Z)| = 8\ 2^{n-4} = 2^{n-1}$ y existen $24\ C_n^4 = V_n^4$ posets isomorfos a él.
Luego $V_n^3 + V_n^4 \leq |PNC^{(2^{n-1})}(n)|$. Como $|PNC^{(2^{n-1})}(n)| \leq |P^{(2^{n-1})}(n)|$ y por el Lema 5.1 (c), $|P^{(2^{n-1})}(n)| = V_n^3 + V_n^4$, entonces

$$|PNC^{(2^{n-1})}(n)| = |P^{(2^{n-1})}(n)| = V_n^3 + V_n^4 \text{ y } |PC^{(2^{n-1})}(n)| = 0.$$

□

En el Corolario 5.1 vimos que: Si $n \geq 6$ entonces $|P^{(2^{n-1}+1)}(n)| = 2n$ y $|P^{(2^{n-1}+2)}(n)| = 2(n-1)n$.

Lema 5.10 *Si* $n \geq 6$ *entonces* $|P^{(2^{n-1}+1)}(n)| = |PC^{(2^{n-1}+1)}(n)|$.

Dem. Sea $X \in PC(n)$ un poset con primer elemento p, tal que si $x \in X$ $x \neq p$ entonces x cubre a p, luego $|RB(X)| = |RB(X \setminus (p])| + |RB(X \setminus [p))| = 2^{n-1} + 1$. Es claro que existen n conjuntos isomorfos a él. Análogamente si $X \in PC(n)$ un poset con último elemento u, tal que si $x \in X$ $x \neq u$ entonces u cubre a x, luego $|RB(X)| = |RB(X \setminus (u])| + |RB(X \setminus [u))| = 1 + 2^{n-1}$. Es claro que existen n conjuntos isomorfos a él. Como $2n \leq |PC^{(2^{n-1}+1)}(n)| \leq |P^{(2^{n-1}+1)}(n)| = 2n$, entonces

$$|PC^{(2^{n-1}+1)}(n)| = |P^{(2^{n-1}+1)}(n)| = 2n \text{ y } |PNC^{(2^{n-1}+1)}(n)| = 0.$$

□

Por las tablas indicadas en la sección **8** el Lema también es válido para $n = 3, 4, 5$.

Lema 5.11 *Si $n \geq 6$ entonces $|PNC^{(2^{n-1}+2)}(n)| = 2(n-1)n$ y $|PC^{(2^{n-1}+2)}(n)| = 0$.*

Dem. Por el Lema 5.6 $|PC^{(2^{n-1}+2)}(n)| = 0$, y por el Corolario 5.1 $|P^{(2^{n-1}+2)}(n)| = 2(n-1)n$. □

Corolario 5.2 $|PC^{(7\ 2^{n-4})}(n)| = |PC^{(15\ 2^{n-5})}(n)| = |PC^{(2^{n-1})}(n)| = |PNC^{(2^{n-1}+1)}(n)| = 0$.

Luego si $n \geq 6$, todas las fórmulas indicadas por Stanley en el Lema 5.1, para $n \geq 6$, $j \geq 7\ 2^{n-4}$ y $j \neq 2^{n-1}+1$ corresponden a posets no conexos.

6. Fórmulas de S. Savini e I. Viglizzo

Si $X \in P(n)$ sea $M(X)$ el conjunto de los elementos maximales de X. Si $X \in PC(n)$ y $n \geq 2$ entonces $m(X) \cap M(X) = \emptyset$ y si $X \in PNC(n)$ sea $M'(X)$ el conjunto de los elementos maximales que no son minimales.
Si $m, M \leq n$ sean

- $PC(n,m,M) = \{X \in PC(n,m) : \ |M(X)| = M\}$,
- $PNC^{(')}(n,m,M) = \{X \in PNC(n,m) : |M'(X)| = M\}$.

Es claro que

$$|PC(n,m,1)| = n|P(n-1,m)|. \tag{6.1}$$

Los detalles de los siguientes resultados se encuentran en la sección 10.

Si $n \geq 6$:

Lema 6.1 $|PC(n,n-5,1)| = \binom{n}{n-5}(5\ 16^{n-5} + 60\ 12^{n-5} + 120\ 10^{n-5} + 100\ 9^{n-5} + 80\ 8^{n-5} + 270\ 7^{n-5} - 540\ 6^{n-5} - 480\ 5^{n-5} + 540\ 3^{n-5} - 160\ 2^{n-5} + 5)$.

También por (6.1) $|PC(n,n-5,1)| = n|P(n-1,n-5)|$.

Lema 6.2 $|PC(n,n-5,2)| = \binom{n}{n-5}(20\ 17^{n-5} + 60\ 14^{n-5} + 180\ 13^{n-5} + 60\ 12^{n-5} + 420\ 11^{n-5} + 310\ 10^{n-5} - 20\ 9^{n-5} - 120\ 8^{n-5} - 1.620\ 7^{n-5} - 1.020\ 6^{n-5} + 1.260\ 5^{n-5} + 1.200\ 4^{n-5} - 810\ 3^{n-5} + 80\ 2^{n-5})$.

Lema 6.3 $|PC(n,n-5,3)| = \binom{n}{n-5}(30\ 19^{n-5} + 60\ 17^{n-5} + 180\ 15^{n-5} + 60\ 14^{n-5} + 210\ 13^{n-5} + 120\ 12^{n-5} - 540\ 11^{n-5} + 10\ 10^{n-5} - 580\ 9^{n-5} - 400\ 8^{n-5} + 190\ 7^{n-5} + 600\ 6^{n-5} + 840\ 5^{n-5} - 960\ 4^{n-5} + 180\ 3^{n-5})$.

Lema 6.4 $|PC(n,n-5,4)| = \binom{n}{n-5}(20\ 23^{n-5} + 30\ 19^{n-5} + 20\ 17^{n-5} + 5\ 16^{n-5} - 75\ 15^{n-5} - 60\ 12^{n-5} - 60\ 10^{n-5} - 40\ 9^{n-5} + 100\ 8^{n-5} + 90\ 7^{n-5} + 270\ 6^{n-5} - 420\ 5^{n-5} + 120\ 4^{n-5})$.

Lema 6.5 $|PC(n,n-5,5)| = \binom{n}{n-5}(31^{n-5} - 5\ 16^{n-5} - 10\ 10^{n-5} + 20\ 9^{n-5} + 30\ 7^{n-5} - 60\ 6^{n-5} + 24\ 5^{n-5})$.

Corolario 6.1 $|PC(n,n-5)| = \binom{n}{n-5}(31^{n-5} + 20\ 23^{n-5} + 60\ 19^{n-5} + 100\ 17^{n-5} + 5\ 16^{n-5} + 105\ 15^{n-5} + 120\ 14^{n-5} + 390\ 13^{n-5} + 180\ 12^{n-5} - 120\ 11^{n-5} + 370\ 10^{n-5} - 520\ 9^{n-5} - 340\ 8^{n-5} - 1.040\ 7^{n-5} - 750\ 6^{n-5} + 1.224\ 5^{n-5} + 360\ 4^{n-5} - 90\ 3^{n-5} - 80\ 2^{n-5} + 5)$.

Si $n \geq 5$:

Lema 6.6 $|PC(n, n-4, 1)| = \binom{n}{n-4}$ $(4\ 8^{n-4} + 24\ 6^{n-4} + 24\ 5^{n-4} - 24\ 4^{n-4}\ -72\ 3^{n-4} + 48\ 2^{n-4} - 4)$.

También por (6.1) $|PC(n, n-4, 1)| = n|P(n-1, n-4)|$.

Lema 6.7 $|PC(n, n-4, 2)| = \binom{n}{n-4}(12\ 9^{n-4} + 12\ 8^{n-4} + 48\ 7^{n-4} + 30\ 6^{n-4} - 120\ 5^{n-4} - 84\ 4^{n-4} + 126\ 3^{n-4} - 24\ 2^{n-4})$.

Lema 6.8 $|PC(n, n-4, 3)| = \binom{n}{n-4}(12\ 11^{n-4} + 12\ 9^{n-4} + 4\ 8^{n-4} - 28\ 7^{n-4} - 24\ 6^{n-4} - 24\ 5^{n-4} + 72\ 4^{n-4} - 24\ 3^{n-4})$.

Lema 6.9 $|PC(n, n-4, 4)| = \binom{n}{n-4}(15^{n-4} - 4\ 8^{n-4} - 3\ 6^{n-4} + 12\ 5^{n-4} - 6\ 4^{n-4})$.

Corolario 6.2 $|PC(n, n-4)| = \binom{n}{n-4}(15^{n-4} + 12\ 11^{n-4} + 24\ 9^{n-4} + 16\ 8^{n-4} + 20\ 7^{n-4} + 27\ 6^{n-4} - 108\ 5^{n-4} - 42\ 4^{n-4} + 30\ 3^{n-4} + 24\ 2^{n-4} - 4)$.

Si $n \geq 4$:

Lema 6.10 $|PC(n, n-3, 1)| = \binom{n}{n-3}(3\ 4^{n-3} + 6\ 3^{n-3} - 12\ 2^{n-3} + 3)$.

También por (6.1) $|PC(n, n-3, 1)| = n|P(n-1, n-3)|$.

Lema 6.11 $|PC(n, n-3, 2)| = \binom{n}{n-3}(6\ 5^{n-3} + 3\ 4^{n-3} - 15\ 3^{n-3} + 6\ 2^{n-3})$.

Lema 6.12 $|PC(n, n-3, 3)| = \binom{n}{n-3}$ $(7^{n-3} - 3\ 4^{n-3} + 2\ 3^{n-3})$.

Corolario 6.3 $|PC(n, n-3)| = \binom{n}{n-3}$ $(7^{n-3} + 6\ 5^{n-3} + 3\ 4^{n-3} - 7\ 3^{n-3} - 6\ 2^{n-3} + 3)$.

Si $n \geq 3$:

Lema 6.13 $|PC(n, n-2, 1)| = \binom{n}{n-2}$ $(2\ 2^{n-2} - 2)$.

También por (6.1) $|PC(n, n-2, 1)| = n|P(n-1, n-2)|$.

Lema 6.14 $|PC(n, n-2, 2)| = \binom{n}{n-2}$ $(3^{n-2} - 2^{n-2})$.

Corolario 6.4 $|PC(n, n-2)| = \binom{n}{n-2}$ $(3^{n-2} + 2^{n-2} - 2)$.

Si $n \geq 5$:

Lema 6.15 $|PNC^{(\prime)}(n, n-4, 1)| = \binom{n}{n-4}(4\ 9^{n-4} - 4\ 8^{n-4} + 24\ 7^{n-4} - 48\ 5^{n-4} - 48\ 4^{n-4} + 120\ 3^{n-4} - 52\ 2^{n-4} + 4)$.

Lema 6.16 $|PNC^{(\prime)}(n, n-4, 2)| = \binom{n}{n-4}(12\ 10^{n-4} + 36\ 8^{n-4} - 18\ 7^{n-4} - 138\ 6^{n-4} + 60\ 5^{n-4} + 114\ 4^{n-4} - 78\ 3^{n-4} + 12\ 2^{n-4})$.

Lema 6.17 $|PNC^{(\prime)}(n, n-4, 3)| = \binom{n}{n-4}(12\ 12^{n-4} - 12\ 11^{n-4} + 12\ 10^{n-4} - 8\ 9^{n-4} - 32\ 8^{n-4} + 28\ 7^{n-4} + 12\ 5^{n-4} - 36\ 4^{n-4} + 36\ 3^{n-4} - 12\ 2^{n-4})$.

Lema 6.18 $|PNC^{(\prime)}(n,n-4,4)| = \binom{n}{n-4}(16^{n-4} - 15^{n-4} + 3\ 6^{n-4} - 12\ 5^{n-4} + 12\ 4^{n-4} - 4\ 2^{n-4} + 1)$.

Corolario 6.5 $|PNC(n,n-4)| = \binom{n}{n-4}(16^{n-4} - 15^{n-4} + 12\ 12^{n-4} - 12\ 11^{n-4} + 24\ 10^{n-4} - 4\ 9^{n-4} + 34\ 7^{n-4} - 135\ 6^{n-4} + 12\ 5^{n-4} + 42\ 4^{n-4} + 78\ 3^{n-4} - 56\ 2^{n-4} + 5)$.

Si $n \geq 4$:

Lema 6.19 $|PNC^{(\prime)}(n,n-3,1)| = \binom{n}{n-3}(3\ 5^{n-3} + 3\ 4^{n-3} - 18\ 3^{n-3} + 15\ 2^{n-3} - 3)$.

Lema 6.20 $|PNC^{(\prime)}(n,n-3,2)| = \binom{n}{n-3}(6\ 6^{n-3} - 3\ 5^{n-3} - 12\ 4^{n-3} + 9\ 3^{n-3})$.

Lema 6.21 $|PNC^{(\prime)}(n,n-3,3)| = \binom{n}{n-3}(8^{n-3} - 7^{n-3} - 2\ 3^{n-3} + 3\ 2^{n-3} - 1)$.

Corolario 6.6 $|PNC(n,n-3)| = \binom{n}{n-3}(8^{n-3} - 7^{n-3} + 6\ 6^{n-3} - 9\ 4^{n-3} - 11\ 3^{n-3} + 18\ 2^{n-3} - 4)$.

Si $n \geq 3$:

Lema 6.22 $|PNC^{(\prime)}(n,n-2,1)| = \binom{n}{n-2}\left(2\ 3^{n-2} - 4\ 2^{n-2} + 2\right)$.

Lema 6.23 $|PNC^{(\prime)}(n,n-2,2)| = \binom{n}{n-2}\left(4^{n-2} - 3^{n-2} - 2^{n-2} + 1\right)$.

Corolario 6.7 $|PNC(n,n-2)| = \binom{n}{n-2}\left(4^{n-2} + 3^{n-2} - 5\ 2^{n-2} + 3\right)$.

Luego por Corolario (6.4)

Corolario 6.8 $|P(n,n-2)| = \binom{n}{n-2}\left(4^{n-2} + 2\ 3^{n-2} - 4\, 2^{n-2} + 1\right)$.

7. $|PNC(n,2)|, n \geq 3$.

Si $X \in P(n)$, entonces $X \in PC(n)$ ó $X = \sum_{i=1}^{k} K_i$, $k \geq 2$, donde los K_i son conexos. Si $n_i = |K_i| < n$, entonces $n_1, n_2, \ldots, n_k$ es una k-partición de n y si $k > 2$ entonces $|m(X)| > 2$ pues en cada K_i tenemos al menos un elemento minimal.
Si $X \in PNC(n,2)$ sea $m(X) = \{m_1, m_2\}$ y

$$\emptyset \neq K_1 = \{x \in X : m_1 \leq x\} \subset \mathbf{n},\ \ \emptyset \neq K_2 = \{x \in X : m_2 \leq x\} \subset \mathbf{n}.$$

Luego $K_1 \cap K_2 = \emptyset$ y $|K_1| + |K_2| = n$.
Si (i) $y \in K_1$, (ii) $z \in K_2$ e $y \leq z$ por (i) $m_1 \leq y$ luego $m_1 \leq z$ entonces $z \in K_1$ absurdo. Análogamente no puede ser $z \leq y$. Luego $X = K_1 + K_2$, K_1 y K_2 posets con un elemento minimal cada uno, luego posets conexos, con $1 \leq |K_1| = n_1$ entonces $n_1 < n$ y $1 \leq |K_2| = n_2 = n - n_1$. Podemos suponer sin inconvenientes que $n_1 \leq n_2$.
Sea $1 \leq n_1 \leq \left[\dfrac{n}{2}\right]$. Si n es par entonces $n_1 \leq n - n_1$. En efecto, si $n - n_1 < n_1$ esto es $n < 2\, n_1$, luego como $2\, n_1 \leq 2\left[\dfrac{n}{2}\right] = 2\dfrac{n}{2}$, entonces $n < n$, absurdo.
Si n es impar, entonces $n_1 < n - n_1$. En efecto, si n es impar y $n - n_1 \leq n_1$ esto es $n \leq 2\, n_1$ luego como $2\, n_1 \leq 2\left[\dfrac{n}{2}\right] = 2\dfrac{n-1}{2} = n - 1$ entonces $n \leq n - 1$, absurdo.

Si n es impar y $K_1 \subset \mathbf{n}$, $1 \leq n_1 = |K_1| \leq \left[\frac{n}{2}\right]$ y $K_1 \in PC(n_1, 1)$, $K_2 \in PC(n - n_1, 1)$ entonces $|K_1| \neq |\mathbf{n} \setminus K_1|$ y $X = K_1 + K_2 \in PNC(n, 2)$.

Observemos que si $W_1 \subset \mathbf{n}$, $1 \leq n_1 = |W_1| \leq \left[\frac{n}{2}\right]$, $W_1 \in PC(n_1, 1)$, y $W_1 \neq K_1$ entonces $W_1 + (\mathbf{n} \setminus W_1) \neq K_1 + (\mathbf{n} \setminus K_1)$.

Como tenemos $\binom{n}{n_1}$ formas de elegir subconjuntos de $\mathbf{n}$ con n_1 elementos $1 \leq n_1 \leq \left[\frac{n}{2}\right]$ de este modo obtenemos

$$\sum_{n_1=1}^{[\frac{n}{2}]} \binom{n}{n_1} |PC(n_1, 1)||PC(n - n_1, 1)|$$

elementos de $PNC(n, 2)$, luego

$$\sum_{n_1=1}^{[\frac{n}{2}]} \binom{n}{n_1} |PC(n_1, 1)||PC(n - n_1, 1)| \leq |PNC(n, 2)|$$

y por lo visto precedentemente si $X \in PNC(n, 2)$ entonces $X = K_1 + K_2$ donde K_1, K_2 son posets conexos con un elemento minimal cada uno, tales que $1 \leq |K_1| \leq \left[\frac{n}{2}\right]$ y $K_2 = \mathbf{n} \setminus K_1$, $K_1 \neq K_2$, luego si n es impar:

$$|PNC(n, 2)| = \sum_{n_1=1}^{[\frac{n}{2}]} \binom{n}{n_1} |PC(n_1, 1)||PC(n - n_1, 1)|$$

Si n es par, y $K_1 \subset \mathbf{n}$, $1 \leq n_1 = |K_1| \leq \left[\frac{n}{2}\right]$ y $K_1 \in PC(n_1, 1)$, $K_2 \in PC(n - n_1, 1)$ entonces $X = K_1 + K_2 \in PNC(n, 2)$, pero puede ser $|K_1| = |\mathbf{n} \setminus K_1| = \frac{n}{2}$.
Supongamos que $K_1 \subset \mathbf{n}$, $1 \leq n_1 = |K_1| \leq \left[\frac{n}{2}\right] - 1$ y $K_1 \in PC(n_1, 1)$, $K_2 \in PC(n - n_1, 1)$ entonces $|K_1| \neq |\mathbf{n} \setminus K_1|$ y $X = K_1 + K_2 \in PNC(n, 2)$.
Observemos que si $W_1 \subset \mathbf{n}$, $1 \leq n_1 = |W_1| \leq \left[\frac{n}{2}\right] - 1$, $W_1 \in PC(n_1, 1)$, y $W_1 \neq K_1$ entonces $W_1 + (\mathbf{n} \setminus W_1) \neq K_1 + (\mathbf{n} \setminus K_1)$.

Como tenemos $\binom{n}{n_1}$ formas de elegir subconjuntos de $\mathbf{n}$ con n_1 elementos $1 \leq n_1 \leq \left[\frac{n}{2}\right] - 1$ de este modo obtenemos

$$\sum_{n_1=1}^{[\frac{n}{2}]-1} \binom{n}{n_1} |PC(n_1, 1)||PC(n - n_1, 1)|$$

elementos de $PNC(n, 2)$.

Si $|K_1| = \left[\frac{n}{2}\right]$ entonces $|\mathbf{n} \setminus K_1| = \left[\frac{n}{2}\right]$. Tenemos $\binom{n}{\frac{n}{2}}$ formas de elegir subconjuntos K_1

de $\mathbf{n}$ con $\dfrac{n}{2}$ elementos luego si $K_2 = \mathbf{n} \setminus K_1$ entonces $|K_2| = \dfrac{n}{2}$, como $K_1 + K_2 = K_2 + K_1$ entonces tenemos $\binom{n}{\frac{n}{2}} \dfrac{|PC(\frac{n}{2},1)|^2}{2}$ elementos de $PNC(n,2)$ luego

$$\sum_{n_1=1}^{[\frac{n}{2}]-1} \binom{n}{n_1} |PC(n_1,1)||PC(n-n_1,1)| + \binom{n}{\frac{n}{2}} \frac{|PC(\frac{n}{2},1)|^2}{2} \leq |PNC(n,2)|.$$

Si $X \in PNC(n,2)$ entonces $X = K_1 + K_2$ con $1 \leq |K_1| \leq \dfrac{n}{2}$ y $1 \leq |K_2| \leq \dfrac{n}{2}$, y $K_1,\ K_2$ tienen un elemento minimal cada uno. Luego por lo visto precedentemente

$$|PNC(n,2)| = \sum_{n_1=1}^{[\frac{n}{2}]-1} \binom{n}{n_1} |PC(n_1,1)||PC(n-n_1,1)| + \binom{n}{\frac{n}{2}} \frac{|PC(\frac{n}{2},1)|^2}{2}.$$

Luego si $n \geq 3$

$$|PNC(n,2)| = \begin{cases} \text{Si } n \text{ es par,} \\ \displaystyle\sum_{k=1}^{\frac{n}{2}-1} \binom{n}{k} |PC(k,1)|.|PC(n-k,1)| + \binom{n}{\frac{n}{2}} \frac{|PC(\frac{n}{2},1)|^2}{2}, \\ \text{si } n \text{ es impar,} \\ \displaystyle\sum_{k=1}^{\frac{n-1}{2}} \binom{n}{k} |PC(k,1)|.|PC(n-k,1)|. \end{cases} \tag{7.1}$$

Es fácil ver que:

$$|PNCNI(n,2)| = \begin{cases} \text{Si } n \text{ es par, } n \geq 4 \\ \sum_{k=1}^{\frac{n}{2}-1} |PCNI(k,1)||PCNI(n-k,1)| + \\ \dfrac{|PCNI(\frac{n}{2},1)|^2 + |PCNI(\frac{n}{2},1)|}{2}, \\ \text{si } n \text{ es impar, } n \geq 3 \\ \sum_{k=1}^{\frac{n-1}{2}} |PCNI(k,1)||PCNI(n-k,1)|. \end{cases} \tag{7.2}$$

8. $|P(n)|$, para $1 \le n \le 8$

Si $m, M \le n$ sean

- $PNC(n,m,M) = \{X \in PNC(n,m) : |M(X)| = M\}$,
- $PCNI(n,m,M)$ el conjunto de los posets de $PC(n,m,M)$ que no son isomorfos,
- $PNCNI(n,m,M)$ el conjunto de los posets de $PNC(n,m,M)$ que no son isomorfos,
- $PNI(n,m,M) = PCNI(n,m,M) \cup PNCNI(n,m,M)$.

Brinkmann y McKay [7] determinaron $|PNI(n,m,M)|$ y

$$|PNI(n,m)| = \sum_{M=1}^{n} |PNI(n,m,M)|, \text{ para } 1 \le n,m \le 16.$$

A partir de los diagramas indicados en la sección **9**, obtenemos

$$|PCNI(n,m,M)|, \quad |PNCNI(n,m,M)|, \quad \text{para } \ 1 \le n,m,M \le 6,$$

y los números $|PNI(n,m,M)| = |PCNI(n,m,M)| + |PNCNI(n,m,M)|$ coinciden con los resultados de Brinkmann y McKay.
Para $1 \le m \le n \le 8$, indicamos $|PNCNI(n,m)|$ y utilizando los valores $|PNI(n,m)|$ dados en [7], determinamos $|PCNI(n,m)| = |PNI(n,m)| - |PNCNI(n,m)|$.

Observemos que $|PCNI(n,1)| = |PNI(n-1)|$ y $|PNCNI(n,1)| = 0$. Por (7.2) conocemos $|PNCNI(n,2)|$. Además $|PCNI(n,n-1)| = 1$, $|PNCNI(n,n-1)| = n-2$, $|PCNI(n,n)| = 1$ si $n > 1$ y $|PNCNI(n,n)| = 0$ si $n = 1$.
Utilizando los valores de las Tablas 2 a 6, que se indican más adelante, obtenemos $|PNCNI(7,m)|$ para $3 \le m \le 5$:

$\|PCNI(6,2)\|\|PCNI(1,1)\| =$	110
$\|PCNI(5,2)\|\|PCNI(2,1)\| =$	20
$\|PCNI(4,2)\|\|PCNI(3,1)\| =$	8
$\|PCNI(4,1)\|\|PCNI(3,2)\| =$	5
$\|PCNI(5,1)\|\|PCNI(1,1)\|\|PCNI(1,1)\| =$	16
$\|PCNI(4,1)\|\|PCNI(2,1)\|\|PCNI(1,1)\| =$	5
$\|PCNI(3,1)\|\|PCNI(2,1)\|\|PCNI(2,1)\| =$	2
$\|PCNI(3,1)\|\|PCNI(3,1)\|\|PCNI(1,1)\| - 1 =$	3
$\|PNCNI(7,3)\| =$	169

$$
\begin{array}{lr}
|PCNI(6,3)||PCNI(1,1)| = & 54\\
|PCNI(5,3)||PCNI(2,1)| = & 7\\
|PCNI(4,3)||PCNI(3,1)| = & 2\\
|PCNI(4,2)||PCNI(3,2)| = & 4\\
|PCNI(5,2)||PCNI(1,1)||PCNI(1,1)| = & 20\\
|PCNI(4,2)||PCNI(2,1)||PCNI(1,1)| = & 4\\
|PCNI(3,2)||PCNI(3,1)||PCNI(1,1)| = & 2\\
|PCNI(3,2)||PCNI(2,1)||PCNI(2,1)| = & 1\\
|PCNI(4,1)||PCNI(1,1)||PCNI(1,1)||PCNI(1,1)| = & 5\\
|PCNI(3,1)||PCNI(2,1)||PCNI(1,1)||PCNI(1,1)| = & 2\\
|PCNI(2,1)||PCNI(2,1)||PCNI(2,1)||PCNI(1,1)| = & 1\\
\hline
|PNCNI(7,4)| = & 102
\end{array}
$$

$$
\begin{array}{lr}
|PCNI(6,4)||PCNI(1,1)| = & 10\\
|PCNI(5,4)||PCNI(2,1)| = & 1\\
|PCNI(4,3)||PC(3,2)| = & 1\\
|PCNI(5,3)||PCNI(1,1)||PCNI(1,1)| = & 7\\
|PCNI(4,3)||PCNI(2,1)||PCNI(1,1)| = & 1\\
|PCNI(3,2)||PCNI(3,2)||PCNI(1,1)| = & 1\\
|PCNI(4,2)||PCNI(1,1)||PCNI(1,1)||PCNI(1,1)| = & 4\\
|PCNI(3,2)||PCNI(2,1)||PCNI(1,1)||PCNI(1,1)| = & 1\\
|PCNI(3,1)||PCNI(1,1)||PCNI(1,1)||PCNI(1,1)||PCNI(1,1)| = & 2\\
|PCNI(2,1)||PCNI(2,1)||PCNI(1,1)||PCNI(1,1)||PCNI(1,1)| = & 1\\
\hline
|PNCNI(7,5)| = & 29
\end{array}
$$

Observemos que $|PNC(n)| = \sum_{k=2}^{n} |PNC(n,k)|$. Sabemos determinar:

- $|PNC(n,2)|$, ver (7.1),
- $|PNC(n,n-4)|$, para $n \geq 5$, (Corolario 6.5),
- $|PNC(n,n-3)|$, para $n \geq 4$, (Corolario 6.6),
- $|PNC(n,n-2)|$, para $n \geq 3$, (Corolario 6.7),
- $|PNC(n,n-1)|$, ver (2.2),
- $|PNC(n,n)|$, ver (2.3).

Es claro que:

Tabla 1						
$\|P(1)\|$						
				No isomorfos		
m	$\|PC(1,m)\|$	$\|PNC(1,m)\|$	$\|P(1,m)\|$	$\|PC(1,m)\|$	$\|PNC(1,m)\|$	$\|P(1,m)\|$
1	1	0	1	1	0	1
$\sum$	1	0	1	1	0	1

Tabla 2						
$\|P(2)\|$						
				No isomorfos		
m	$\|PC(2,m)\|$	$\|PNC(2,m)\|$	$\|P(2,m)\|$	$\|PC(2,m)\|$	$\|PNC(2,m)\|$	$\|P(2,m)\|$
1	2	0	2	1	0	1
2	0	1	1	0	1	1
$\sum$	2	1	3	1	1	2

Por (3.1), (3.2) y Tabla 2 tenemos $|P(3,1)| = 3|P(2)| = 9$, $|P(3,2)| = 3|P(2)| = 9$. Por (7.1) $|PNC(3,2)| = \binom{3}{2}||PC(2,1)||PC(1,1)| = 6$, luego por (2.1) $|PC(3,2)| = 3$. Por lo tanto

Tabla 3						
$\|P(3)\|$						
				No isomorfos		
m	$\|PC(3,m)\|$	$\|PNC(3,m)\|$	$\|P(3,m)\|$	$\|PC(3,m)\|$	$\|PNC(3,m)\|$	$\|P(3,m)\|$
1	9	0	9	2	0	2
2	3	6	9	1	1	2
3	0	1	1	0	1	1
$\sum$	12	7	19	3	2	5

$\|PNI(3)\|$								
	$\|PCNI(3,m)\|$				$\|PNCNI(3,m)\|$			
	M				M			
m	1	2	3	$\sum$	1	2	3	$\sum$
1	1	1	0	2	0	0	0	0
2	1	0	0	1	0	1	0	1
3	0	0	0	0	0	0	1	1
$\sum$	2	1	0	3	0	1	1	2

Por (3.1), (3.2) y Tabla 3 tenemos $|P(4,1)| = 4|P(3)| = 76$, $|P(4,2)| = \binom{4}{2}|P(3)| = 114$.
Por Lema 6.14, $|PC(4,2)| = 66$. Por (7.1), $|PNC(4,2)| = 48$.
Por (2.1) y (2.2), $|PC(4,3)| = 4$, $|PNC(4,3)| = 24$. Luego

Tabla 4						
$\|P(4)\|$						
				No isomorfos		
m	$\|PC(4,m)\|$	$\|PNC(4,m)\|$	$\|P(4,m)\|$	$\|PC(4,m)\|$	$\|PNC(4,m)\|$	$\|P(4,m)\|$
1	76	0	76	5	0	5
2	66	48	114	4	3	7
3	4	24	28	1	2	3
4	0	1	1	0	1	1
$\sum$	146	73	219	10	6	16

$\|PNI(4)\|$										
	$\|PCNI(4,m)\|$					$\|PNCNI(4,m)\|$				
	M					M				
m	1	2	3	4	$\sum$	1	2	3	4	$\sum$
1	2	2	1	0	5	0	0	0	0	0
2	2	2	0	0	4	0	2	1	0	3
3	1	0	0	0	1	0	1	1	0	2
4	0	0	0	0	0	0	0	0	1	1
$\sum$	5	4	1	0	10	0	3	2	1	6

Por (3.1), (3.2) y Tabla 4 tenemos:
$|P(5,1)| = 5|P(4)| = 1.095$, $|P(5,2)| = \binom{5}{2}|P(4)| = 2.190$.
Por Corolario 6.3 $|PC(5,2)| = 1.630$. Por (7.1) ó por Corolario 6.6,$|PNC(5,2)| = 560$.
Por Corolario 6.4, $|PC(5,3)| = 330$. Por Corolario 6.7, $|PNC(5,3)| = 540$.
Por (2.1) y (2.2), $|PC(5,4)| = 5$, $|PNC(5,4)| = 70$. Luego

Tabla 5						
$\|P(5)\|$						
				No isomorfos		
m	$\|PC(5,m)\|$	$\|PNC(5,m)\|$	$\|P(5,m)\|$	$\|PC(5,m)\|$	$\|PNC(5,m)\|$	$\|P(5,m)\|$
1	1.095	0	1.095	16	0	16
2	1.630	560	2.190	20	7	27
3	330	540	870	7	8	15
4	5	70	75	1	3	4
5	0	1	1	0	1	1
$\sum$	3.060	1.171	4.231	44	19	63

$\|PNI(5)\|$												
	$\|PCNI(5,m)\|$						$\|PNCNI(5,m)\|$					
	M						M					
m	1	2	3	4	5	$\sum$	1	2	3	4	5	$\sum$
1	5	7	3	1	0	16	0	0	0	0	0	0
2	7	9	4	0	0	20	0	3	3	1	0	7
3	3	4	0	0	0	7	0	3	4	1	0	8
4	1	0	0	0	0	1	0	1	1	1	0	3
5	0	0	0	0	0	0	0	0	0	0	1	1
$\sum$	16	20	7	1	0	44	0	7	8	3	1	19

Por (3.1), (3.2) y Tabla 5 tenemos:
$|P(6,1)| = 6|P(5)| = 25.386$, $|P(6,2)| = \binom{6}{2}|P(5)| = 63.465$.
Por Corolario 6.2, $|PC(6,2)| = 53.805$. Por (7.1), $|PNC(6,2)| = 9.660$.
Por Corolario 6.3, $|PC(6,3)| = 21.020$. Por Corolario 6.6, $|PNC(6,3)| = 14.640$.
Por Corolario 6.4, $|PC(6,4)| = 1.425$. Por Corolario 6.7, $|PNC(6,4)| = 3.900$.
Por (2.1) y (2.2), $|PC(6,5)| = 6$, $|PNC(6,5)| = 180$. Luego

Tabla 6						
$\|P(6)\|$						
				No isomorfos		
m	$\|PC(6,m)\|$	$\|PNC(6,m)\|$	$\|P(6,m)\|$	$\|PC(6,m)\|$	$\|PNC(6,m)\|$	$\|P(6,m)\|$
1	25.386	0	25.386	63	0	63
2	53.805	9.660	63.465	110	24	134
3	21.020	14.640	35.660	54	34	88
4	1.425	3.900	5.325	10	17	27
5	6	180	186	1	4	5
6	0	1	1	0	1	1
$\sum$	101.642	28.381	130.023	238	80	318

$\|PNI(6)\|$														
	$\|PCNI(6,m)\|$							$\|PNCNI(6,m)\|$						
	M							M						
m	1	2	3	4	5	6	$\sum$	1	2	3	4	5	6	$\sum$
1	16	27	15	4	1	0	63	0	0	0	0	0	0	0
2	27	51	26	6	0	0	110	0	8	10	5	1	0	24
3	15	26	13	0	0	0	54	0	10	16	7	1	0	34
4	4	6	0	0	0	0	10	0	5	7	4	1	0	17
5	1	0	0	0	0	0	1	0	1	1	1	1	0	4
6	0	0	0	0	0	0	0	0	0	0	0	0	1	1
$\sum$	63	110	54	10	1	0	238	0	24	34	17	4	1	80

Por (3.1), (3.2) y Tabla 6 tenemos: $|P(7,1)| = 7|P(6)| = 910.161$,
y $|P(7,2)| = 2.730.483$. Por (7.1) $|PNC(7,2)| = 247.632$

Por Corolario 6.1 $|PC(7,2)| = 2.482.851$.
Por Corolario 6.2, $|PC(7,3)| = 1.488.795$.
Por Corolario 6.5, $|PNC(7,3)| = 522.270$. Por Corolario 6.3, $|PC(7,4)| = 219.065$.
Por Corolario 6.6, $|PNC(7,4)| = 229.600$. Por Corolario 6.4, $|PC(7,5)| = 5.733$.
Por Corolario 6.7, $|PNC(7,5)| = 23.310$.
Por (2.1) y (2.2) $|PC(7,6)| = 7$, $|PNC(7,6)| = 434$. Luego

Tabla 7						
$\|P(7)\|$						
				No isomorfos		
m	$\|PC(7,m)\|$	$\|PNC(7,m)\|$	$\|P(7,m)\|$	$\|PC(7,m)\|$	$\|PNC(7,m)\|$	$\|P(7,m)\|$
1	910.161	0	910.161	318	0	318
2	2.482.851	247.632	2.730.483	725	89	814
3	1.488.795	522.270	2.011.065	473	169	642
4	219.065	229.600	448.665	119	102	221
5	5.733	23.310	29.043	14	29	43
6	7	434	441	1	5	6
7	0	1	1	0	1	1
$\sum$	5.106.612	1.023.247	6.129.859	1.650	395	2.045

Para los no isomorfos vamos a mejorar la información:

$\|PNI(7)\|$																
	$\|PCNI(7,m)\|$								$\|PNCNI(7,m)\|$							
	M								M							
m	1	2	3	4	5	6	7	$\sum$	1	2	3	4	5	6	7	$\sum$
1	63	134	88	27	5	1	0	318	0	0	0	0	0	0	0	0
2	134	311	213	58	9	0	0	725	0	23	38	21	6	1	0	89
3	88	213	138	34	0	0	0	473	0	38	75	44	11	1	0	169
4	27	58	34	0	0	0	0	119	0	21	44	29	7	1	0	102
5	5	9	0	0	0	0	0	14	0	6	11	7	4	1	0	29
6	1	0	0	0	0	0	0	1	0	0	1	1	1	1	0	5
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
$\sum$	318	725	473	119	14	1	0	1.650	0	89	169	102	29	5	1	395

Por (3.1), (3.2) y Tabla 7 tenemos: $|P(8,1)| = 8|P(7)| = 49.038.872$ y $|P(8,2)| = \binom{8}{2}|P(7)| = 171.636.052$. Por (7.1) $|PNC(8,2)| = 9.456.944$ luego $|PC(8,2)| = |P(8,2)| - |PNC(8,2)| = 162.179.108$.

$\binom{8}{7}\|PC(7,2)\|\|PC(1,1)\| =$	19.862.808
$\binom{8}{6}\|PC(6,2)\|\|PC(2,1)\| =$	3.013.080
$\binom{8}{5}\|PC(5,2)\|\|PC(3,1)\| =$	821.520
$\binom{8}{5}\|PC(5,1)\|\|PC(3,2)\| =$	183.960
$\binom{8}{4}\|PC(4,2)\|\|PC(4,1)\| =$	351.120
$\binom{8}{6}\|PC(6,1)\|\binom{2}{1}\|PC(1,1)\|\|PC(1,1)\|/2! =$	710.808
$\binom{8}{5}\|PC(5,1)\|\binom{3}{2}\|PC(2,1)\|\|PC(1,1)\| =$	367.920
$\binom{8}{4}\|PC(4,1)\|\binom{4}{3}\|PC(3,1)\|\|PC(1,1)\| =$	191.520
$\binom{8}{4}\|PC(4,1)\|\binom{4}{2}\|PC(2,1)\|\|PC(2,1)\|/2! =$	63.840
$\binom{8}{3}\|PC(3,1)\|\binom{5}{3}\|PC(3,1)\|\|PC(2,1)\|/2! =$	45.360
$\|PNC(8,3)\| =$	25.611.936

Por Corolario 6.1, $|PC(8,3)| = 132.123.656$,
por Corolario 6.2, $|PC(8,4)| = 31.982.090$,
por Corolario 6.5, $|PNC(8,4)| = 16.251.200$,
por Corolario 6.3, $|PC(8,5)| = 2.057.384$,
por Corolario 6.6, $|PNC(8,5)| = 2.872.800$,
por Corolario 6.4, $|PC(8,6)| = 22.148$,
por Corolario 6.7, $|PNC(8,6)| = 126.224$,
por (2.1) y (2.2), $|PC(8,7)| = 8$, $|PNC(8,7)| = 1.008$.

Tabla 8

$|P(8)|$

m	$\|PC(8,m)\|$	$\|PNC(8,m)\|$	$\|P(8,m)\|$
1	49.038.872	0	49.038.872
2	162.179.108	9.456.944	171.636.052
3	132.123.656	25.611.936	157.735.592
4	31.982.090	16.251.200	48.233.290
5	2.057.384	2.872.800	4.930.184
6	22.148	126.224	148.372
7	8	1.008	1.016
8	0	1	1
$\sum$	377.403.266	54.320.113	431.723.379

$\lvert P(8)\rvert$			
	No isomorfos		
m	$\lvert PC(8,m)\rvert$	$\lvert PNC(8,m)\rvert$	$\lvert P(8,m)\rvert$
1	2.045	0	2.045
2	5.830	428	6.258
3	4.820	1.008	5.828
4	1.567	752	2.319
5	231	246	477
6	18	46	64
7	1	6	7
8	0	1	1
$\sum$	14.512	2.487	16.999

Para los no isomorfos vamos a mejorar la información:

$\lvert PCNI(8,m)\rvert$									
	M								
m	1	2	3	4	5	6	7	8	$\sum$
1	318	814	642	221	43	6	1	0	2.045
2	814	2.317	1.916	659	112	12	0	0	5.830
3	642	1.916	1.649	537	76	0	0	0	4.820
4	221	659	537	150	0	0	0	0	1.567
5	43	112	76	0	0	0	0	0	231
6	6	12	0	0	0	0	0	0	18
7	1	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0
$\sum$	2.045	5.830	4.820	1.567	231	18	1	0	14.512

$\lvert PNCNI(8,m)\rvert$									
	M								
m	1	2	3	4	5	6	7	8	$\sum$
1	0	0	0	0	0	0	0	0	0
2	0	87	177	118	37	8	1	0	428
3	0	177	419	302	94	15	1	0	1.008
4	0	118	302	242	78	11	1	0	752
5	0	37	94	78	29	7	1	0	246
6	0	8	15	11	7	4	1	0	46
7	0	1	1	1	1	1	1	0	6
8	0	0	0	0	0	0	0	1	1
$\sum$	0	428	1.008	752	246	46	6	1	2.487

Con $S(n,k)$ representamos los números de Stirling de segunda especie, esto es:

$$S(n,k) = \frac{1}{k!}\sum_{i=0}^{k-1}(-1)^i\binom{k}{i}(k-i)^n,$$

Sea $PO(n)$ el conjunto de los órdenes parciales que se pueden definir sobre un conjunto finito con n elementos y $POC(n)$ el conjunto de los órdenes parciales conexos que se pueden definir sobre un conjunto finito con n elementos. Es bien conocido, ver por ejemplo [21], que:

1) $|PO(n)|$ es igual al número de topologías que se pueden definir sobre un conjunto finito con n elementos,

2) $|POC(n)|$ es igual al número de topologías conexas que se pueden definir sobre un conjunto finito con n,

3) $|POC(n)| = \sum_{k=1}^{n} S(n,k)|PC(k)|$,

4) $|PO(n)| = \sum_{k=1}^{n} S(n,k)|P(k)|$.

9. Diagramas de Hasse de $PNI(\mathbf{n})$, $2 \leq n \leq 7$.

Debajo de los diagramas de cada poset indicamos la cantidad de posets isomorfos a él.

$PNI(\mathbf{2})$

$|RB(\mathbf{2})| = 3$ $|RB(\mathbf{2})| = 4$

1) 

2

2)

1

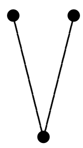
$PNI(\mathbf{3})$

$|RB(\mathbf{3})| = 4$

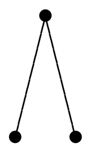
1) 

6

$|RB(\mathbf{3})| = 5$

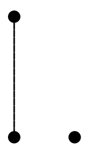
2) 

3

3) 

3

$|RB(\mathbf{3})| = 6$

4) 

6

$|RB(\mathbf{3})| = 8$

5)

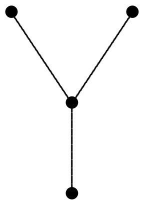
1

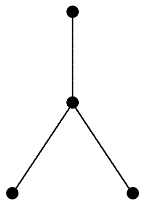
$PNI(\mathbf{4})$

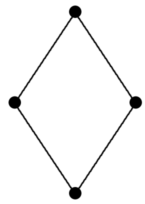
$|RB(\mathbf{4})| = 5$

1) 
24

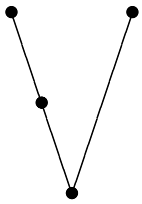
$|RB(\mathbf{4})| = 6$

2) 
12

3) 
12

4) 
12

$|RB(\mathbf{4})| = 7$

5) 
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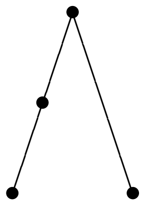
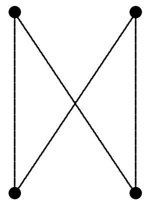
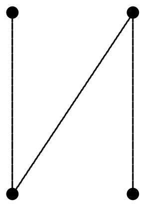
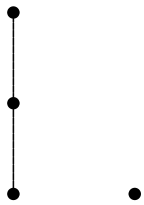
6) 
24

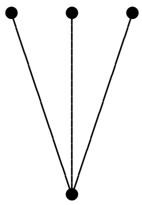
7) 
6

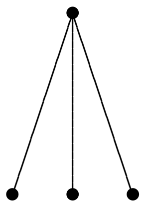
$|RB(\mathbf{4})| = 8$

8) 
24

9) 
24

$|RB(\mathbf{4})| = 9$

10) 
4

11) 
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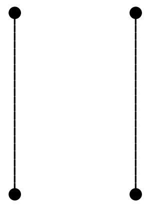
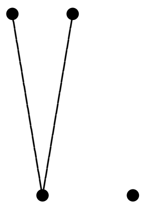
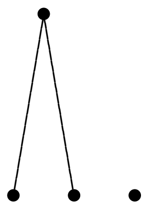
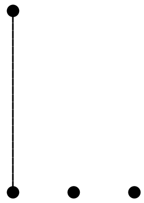
12) 
12

$|RB(\mathbf{4})| = 10$

13) 
12

14) 
12

$|RB(\mathbf{4})| = 12$

15)

12

$|RB(\mathbf{4})| = 16$

16)

1

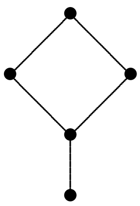
$PNI(\mathbf{5})$

$|RB(\mathbf{5})| = 6$

1)

120

$|RB(\mathbf{5})| = 7$

2)

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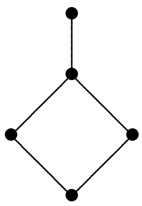
3)

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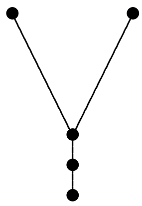
4)

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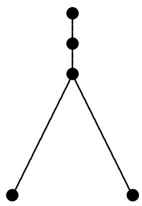
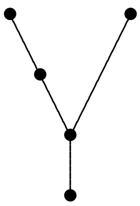
5)

60

$|RB(\mathbf{5})| = 8$

6)

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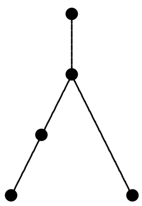
7)

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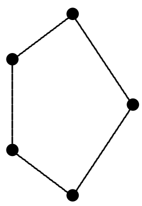
8)

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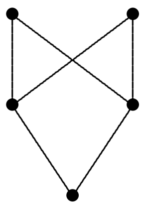
9)

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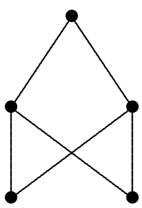
10)

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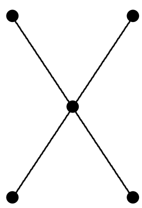
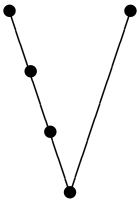
11)

30

$|RB(\mathbf{5})| = 9$

12) 
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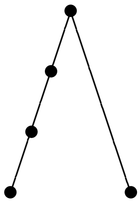
13) 
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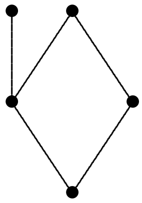
14) 
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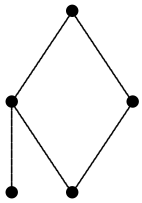
15) 
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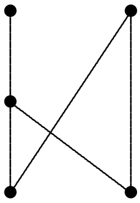
16) 
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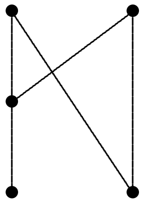
17) 
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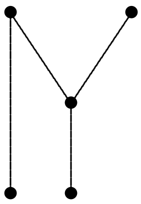
$|RB(\mathbf{5})| = 10$

18) 
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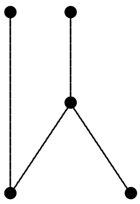
19) 
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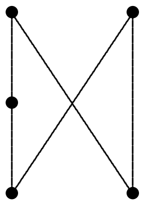
20) 
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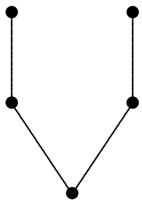
21) 
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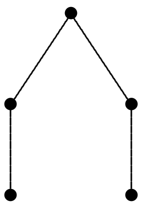
22) 
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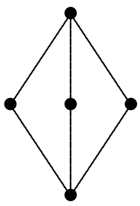
23) 
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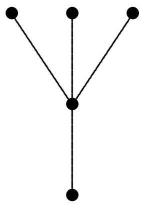
24) 
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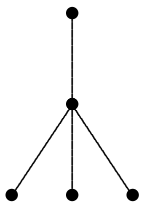
25) 
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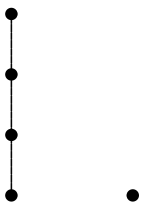
26) 
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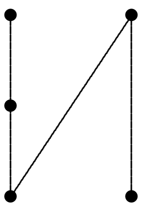
$|RB(\mathbf{5})| = 11$

27) 
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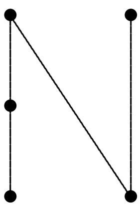
28) 
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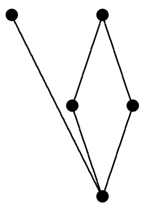
29) 
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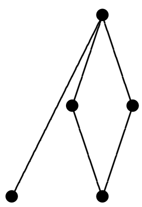
30) 
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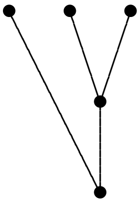
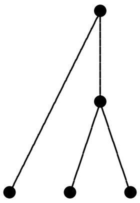
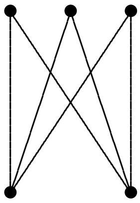
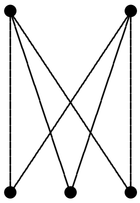
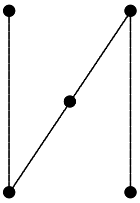
31)  60

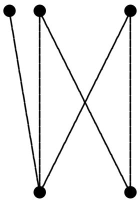
32)  60

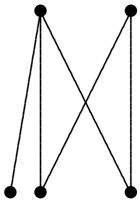
33)  10

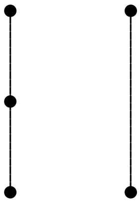
34)  10

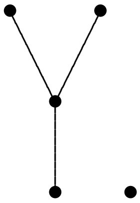
$|RB(\mathbf{5})| = 12$

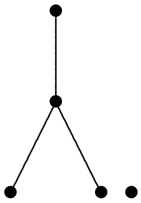
35)  120

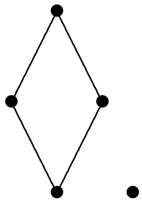
36)  60

37)  60

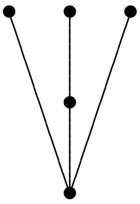
38)  120

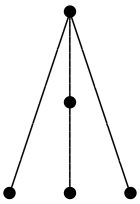
39)  60

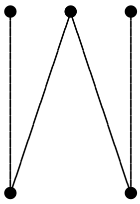
40)  60

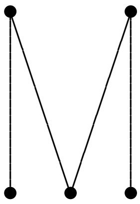
41)  60

$|RB(\mathbf{5})| = 13$

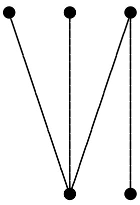
42)  60

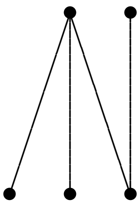
43)  60

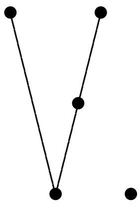
44)  60

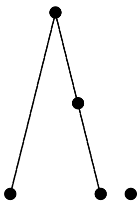
45)  60

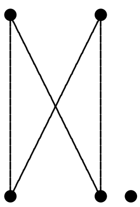
$|RB(\mathbf{5})| = 14$

46)  60

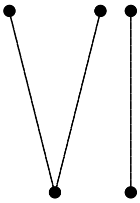
47)  60

48)  120

49)  120

50)  30

$|RB(\mathbf{5})| = 15$

51) 
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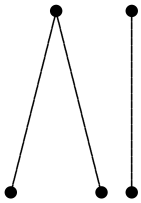
52) 
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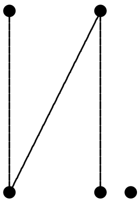
53) 
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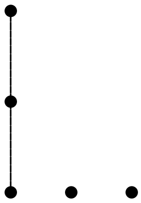
54) 
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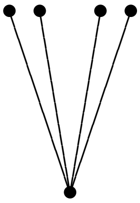
$|RB(\mathbf{5})| = 17$

55) 
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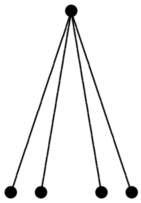
56) 
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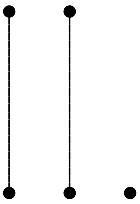
$|RB(\mathbf{5})| = 18$

57) 
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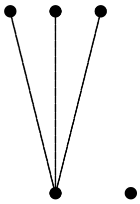
58) 
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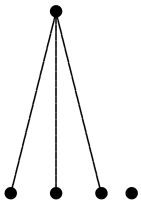
59) 
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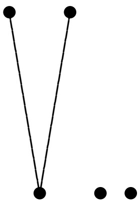
60) 
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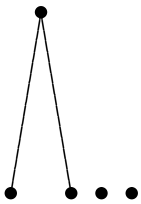
61) 
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$|RB(\mathbf{5})| = 24$

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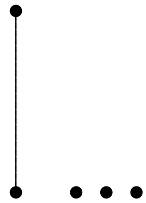
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$|RB(\mathbf{5})| = 32$

63)

1

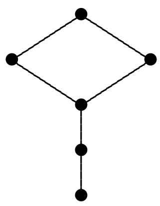
$PNI(\mathbf{6})$

$|RB(\mathbf{6})| = 7$

1)

720

$|RB(\mathbf{6})| = 8$

2)

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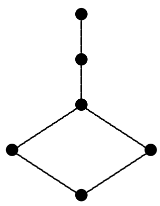
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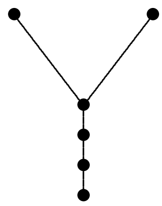
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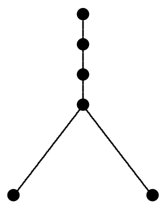
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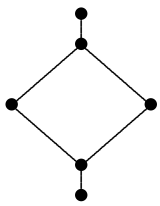
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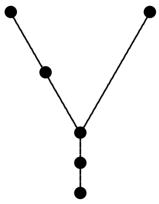
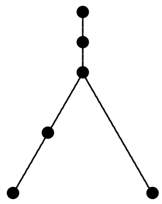
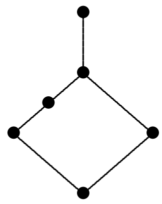
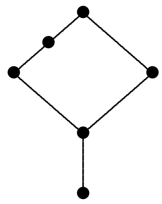
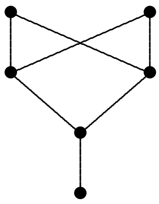
$|RB(\mathbf{6})| = 9$

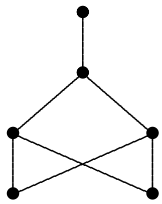
7)  720

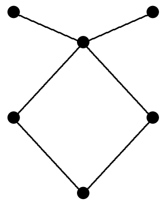
8)  720

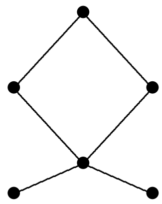
9)  720

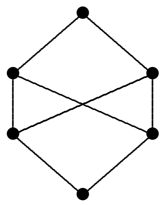
10)  720

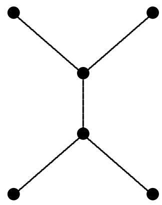
11)  180

12)  180

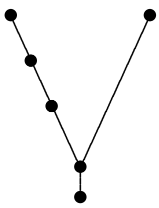
13)  180

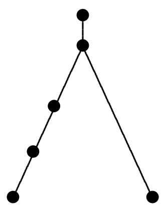
14)  180

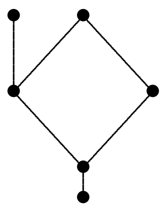
15)  180

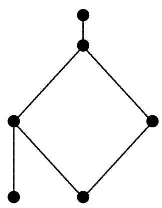
16)  180

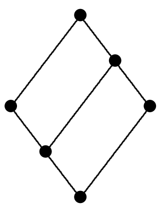
$|RB(\mathbf{6})| = 10$

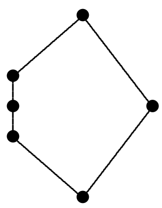
17)  720

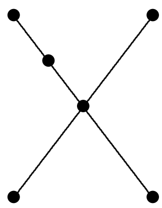
18)  720

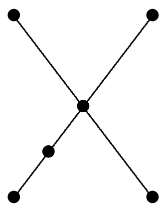
19)  720

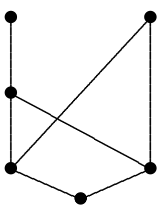
20)  720

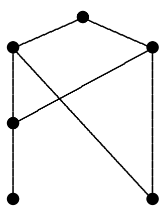
21)  720

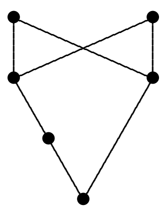
22)  720

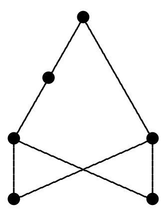
23)  360

24)  360

25)  360

26)  360

27)  360

28)  360

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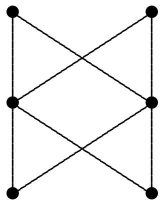
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$|RB(\mathbf{6})| = 11$

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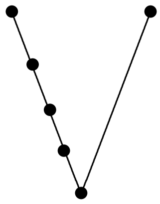
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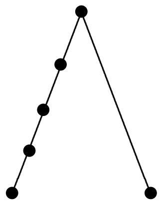
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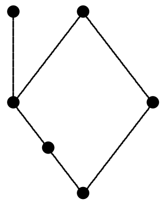
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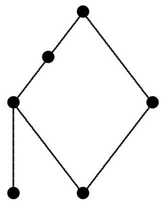
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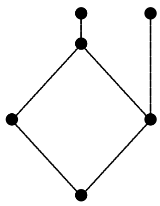
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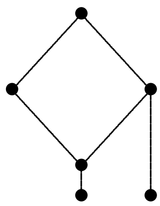
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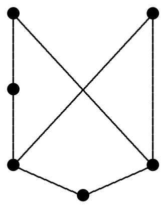
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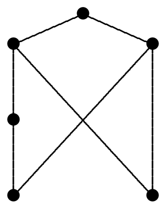
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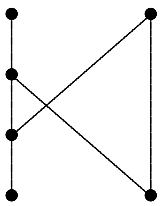
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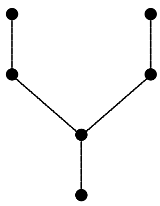
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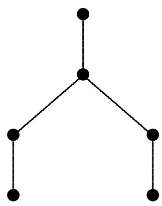
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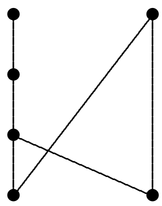
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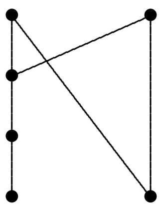
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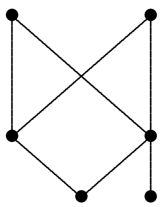
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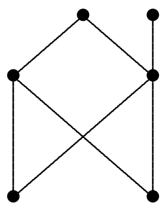
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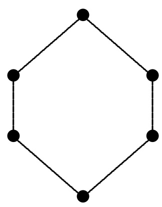
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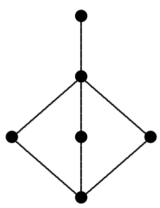
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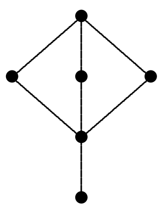
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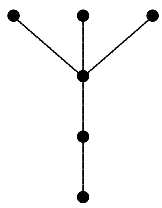
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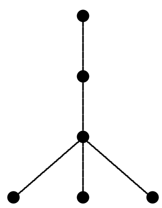
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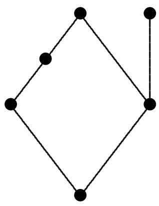
50) 
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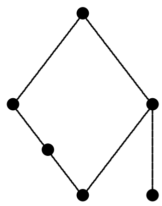
51) 
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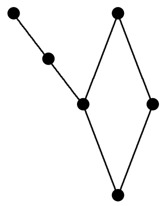
52) 
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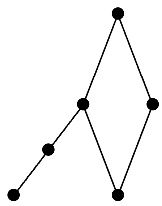
53) 
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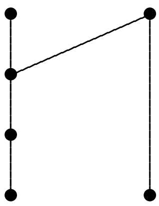
54) 
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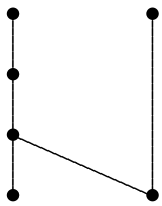
55) 
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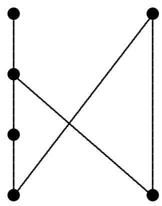
56) 
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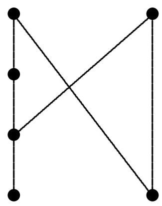
57) 
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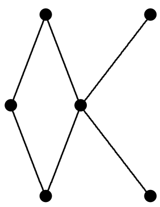
58) 
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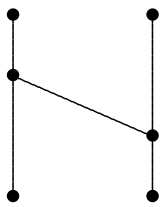
59) 
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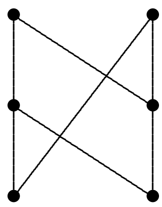
60) 
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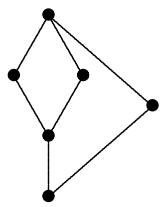
61) 
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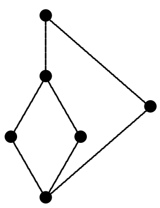
62) 
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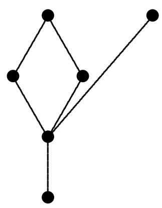
63) 
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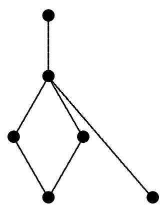
64) 
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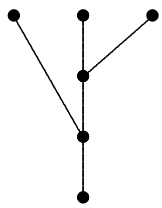
65) 
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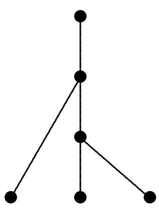
66) 
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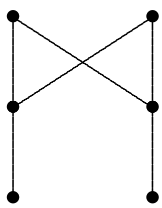
67) 
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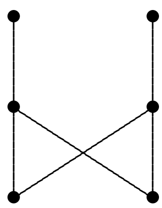
68) 
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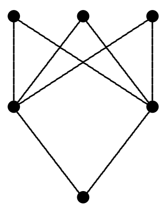
69) 
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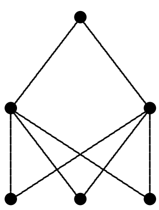
70) 
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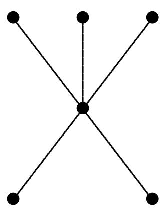
71) 
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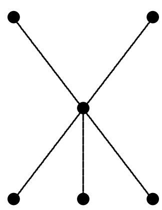
72) 
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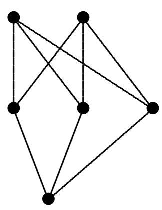
73) 
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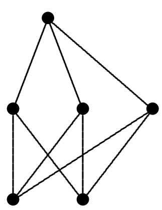
74) 
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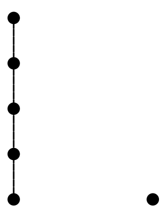
75) 
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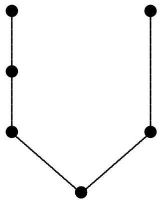
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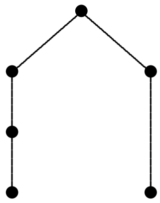
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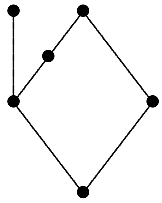
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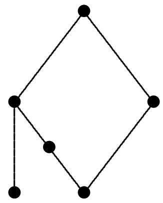
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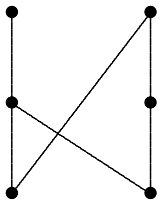
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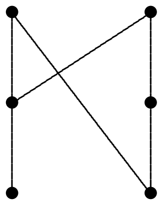
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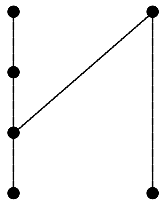
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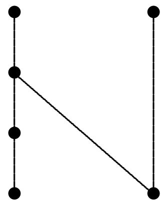
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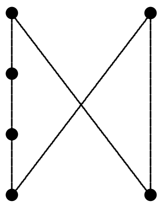
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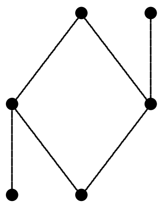
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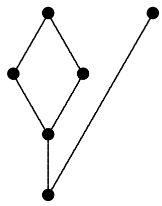
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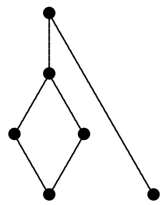
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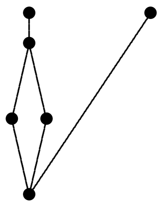
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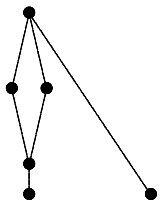
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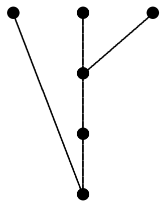
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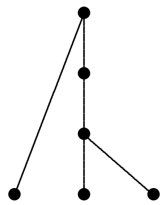
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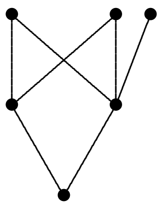
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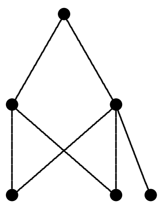
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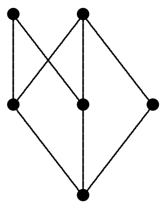
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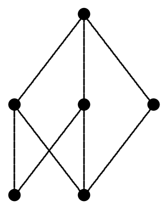
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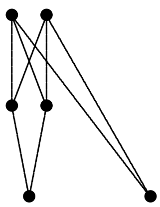
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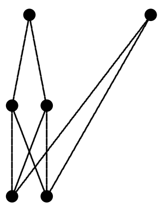
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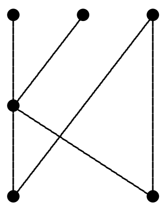
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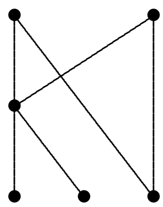
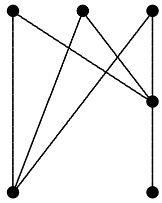
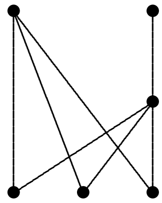
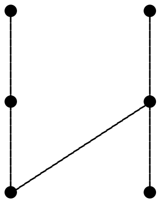
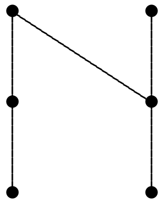
99)

180

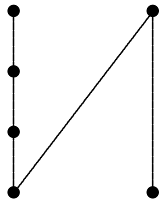
100)  120

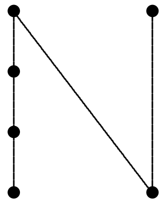
101)  120

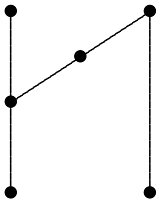
$|RB(\mathbf{6})| = 14$

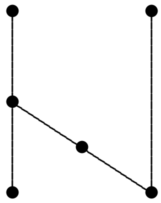
102)  720

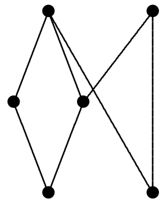
103)  720

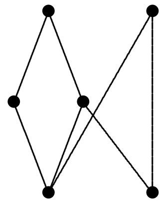
104)  720

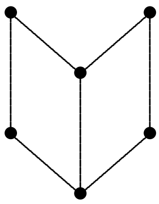
105)  720

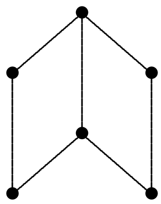
106)  720

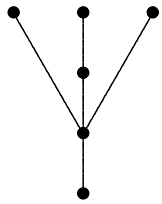
107)  720

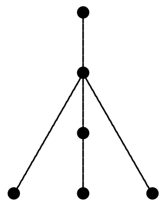
108)  720

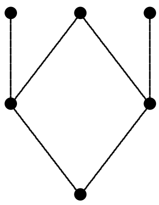
109)  720

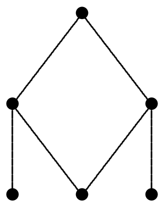
110)  360

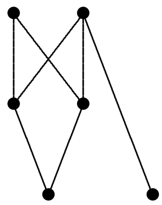
111)  360

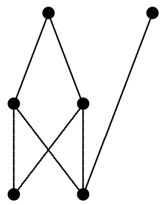
112)  360

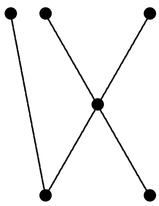
113)  360

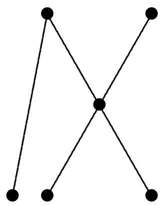
114)  360

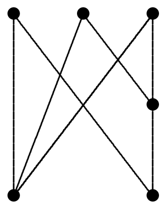
115)  360

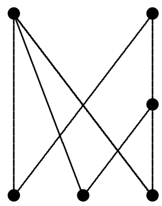
116)  360

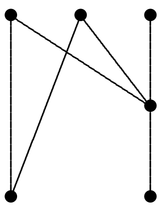
117)  360

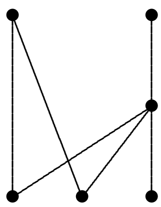
118)  360

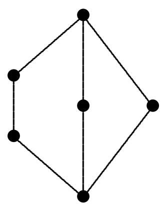
119)  360

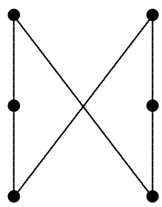
120)  360

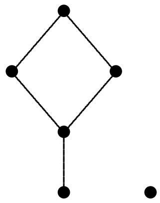
121)  360

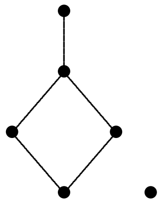
122)  360

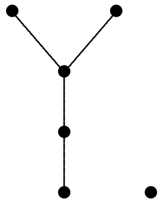
123)  360

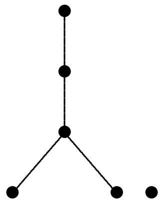
124)  360

125)  360

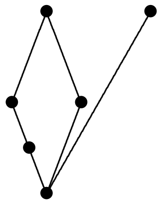
126)  360

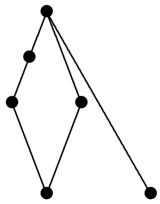
127)  360

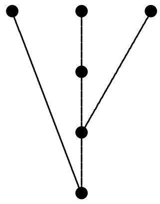
128)  360

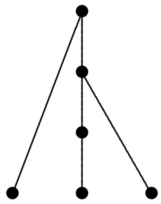
129)  360

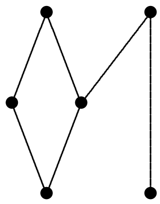
$|RB(\mathbf{6})| = 15$

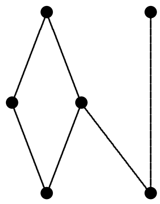
130)  720

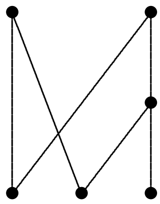
131)  720

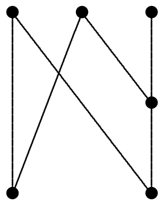
132)  720

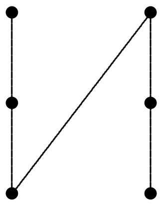
133)  720

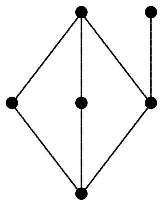
134)  720

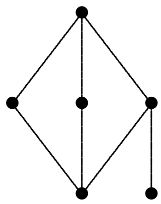
135)  720

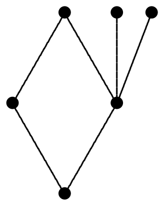
136)  720

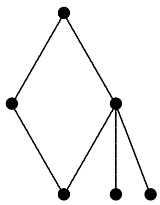
137)  720

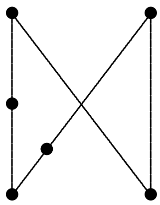
138)  720

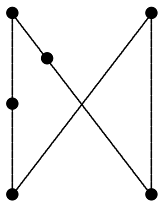
139)  360

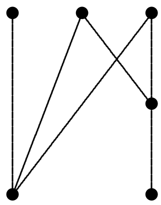
140)  360

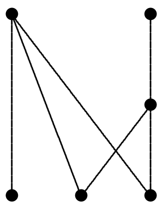
141)  360

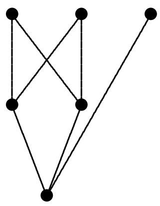
142)  360

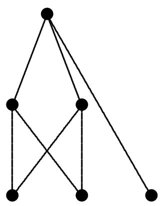
143)  360

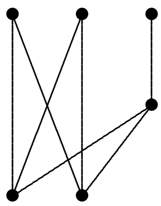
144)  360

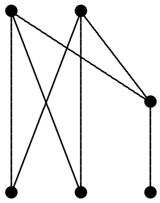
145)  360

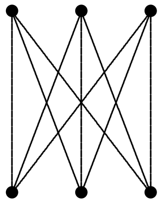
146)  360

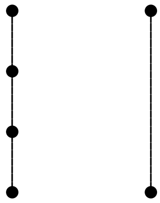
147)  180

148)  180

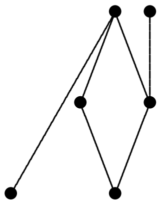
149)  180

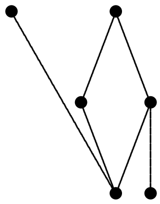
150)  180

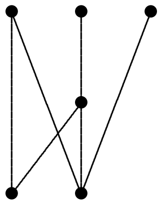
151)  20

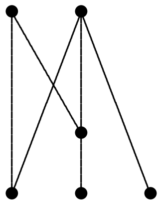
152)  720

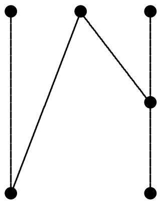
$|RB(\mathbf{6})| = 16$

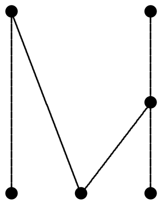
153)  720

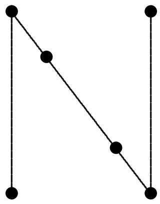
154)  720

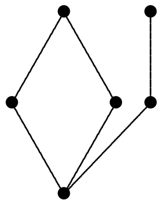
155)  720

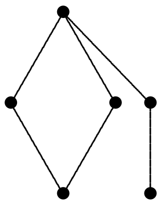
156)  720

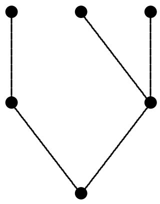
157)  720

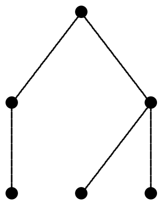
158)  720

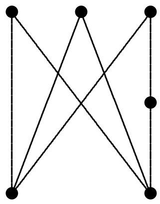
159)  720

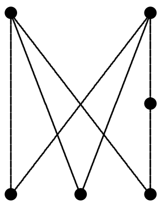
160)  360

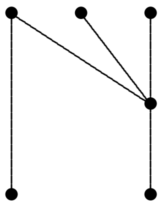
161)  360

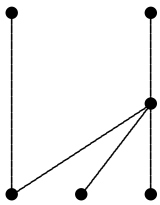
162)  360

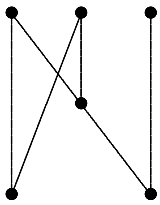
163)  360

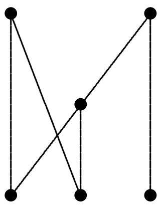
164)  360

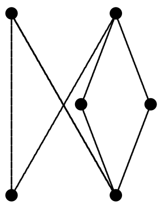
165)  360

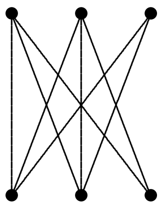
166)  360

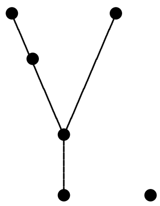
167)  360

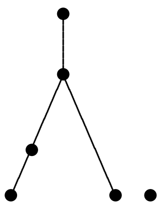
168)  360

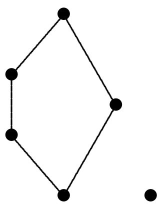
169)  360

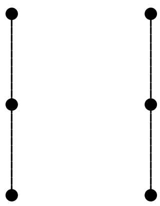
170)  360

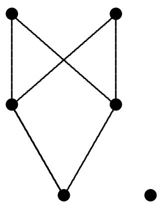
171)  180

172)  720

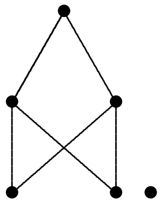
173)  720

174)  720

175)  360

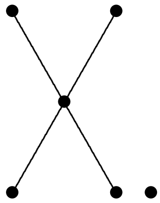
176)  180

177)



180

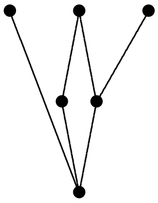
178)



180

$|RB(\mathbf{6})| = 17$

179)



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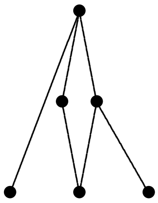
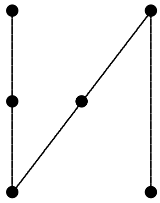


720

181)



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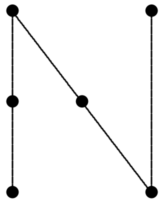
182)



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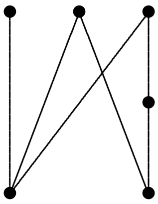
183)



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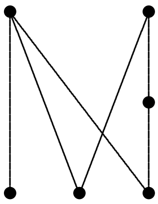
184)



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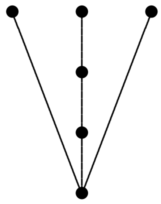
185)



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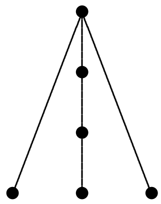
186)



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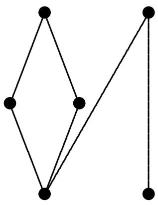
187)



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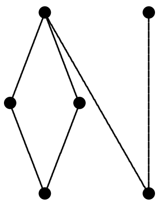
188)



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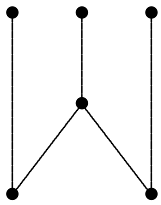
189)



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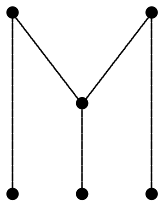
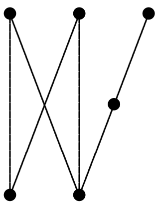
190)



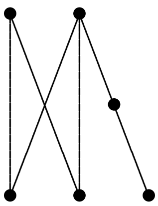
360

191)



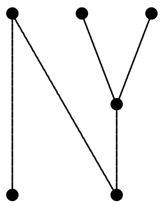
360

192)



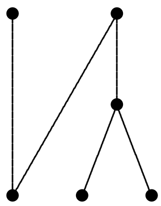
360

193)



360

194)



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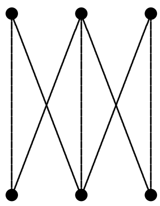
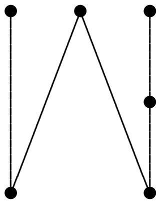
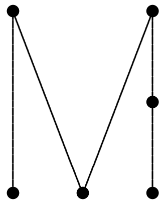
195)



360

$|RB(\mathbf{6})| = 18$

196) 
720

197) 
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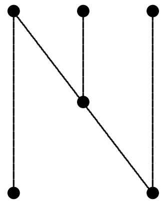
198) 
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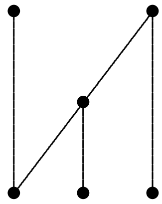
199) 
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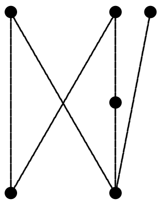
200) 
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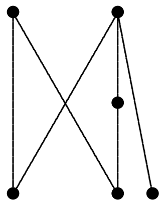
201) 
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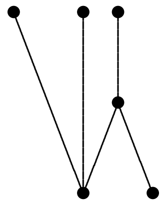
202) 
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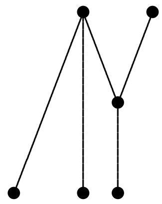
203) 
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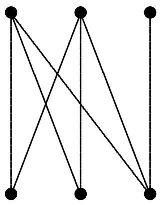
204) 
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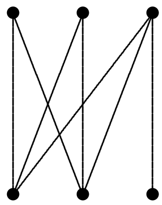
205) 
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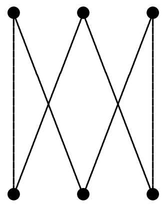
206) 
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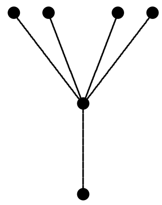
207) 
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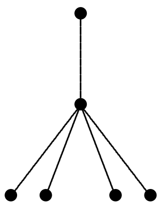
208) 
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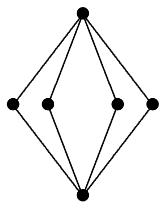
209) 
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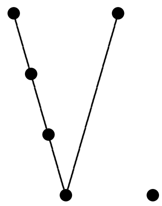
210) 
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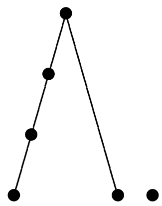
211) 
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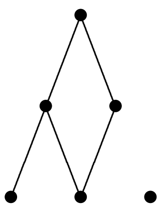
212) 
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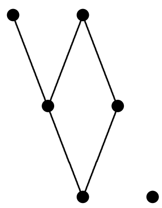
213) 
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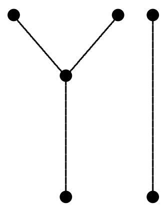
214) 
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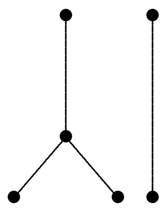
215) 
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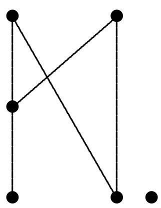
216) 
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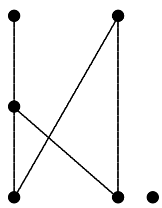
217) 
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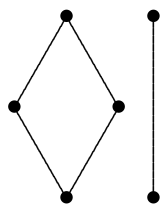
218) 
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$|RB(\mathbf{6})| = 19$

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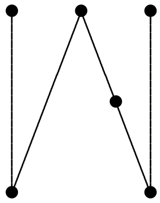
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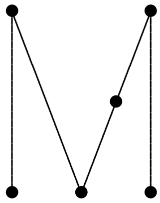
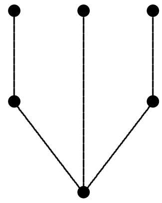
220)

720

221)

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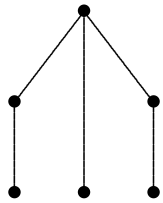
222)

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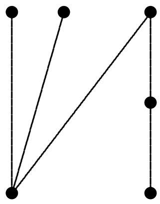
223)

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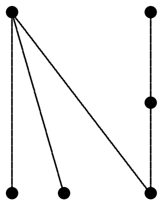
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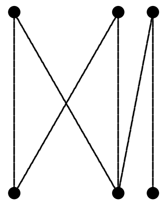
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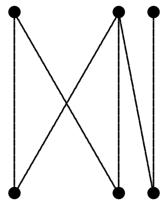
226)

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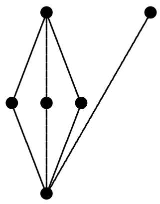
227)

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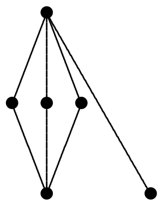
228)

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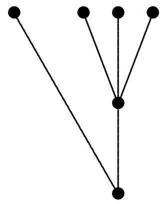
229)

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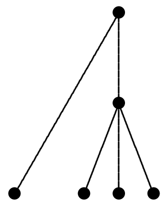
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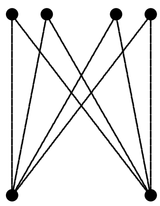
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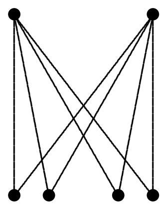
232)

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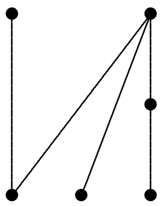
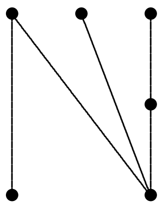
$|RB(\mathbf{6})| = 20$

233)

720

234)

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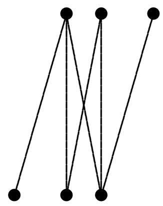
235)

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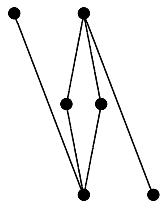
236)

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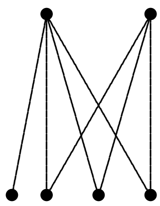
237)

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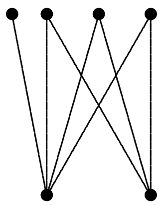
238)

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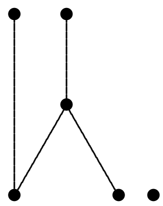
239)

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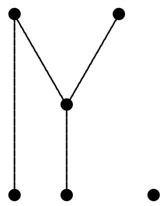
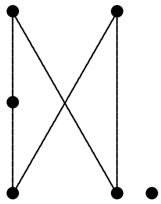
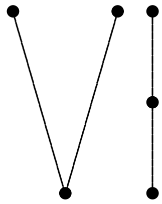
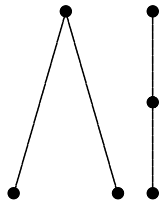
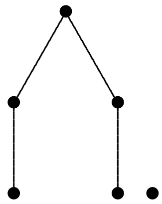
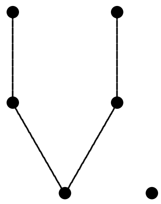
240)

720

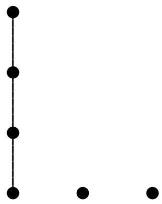
241)  720

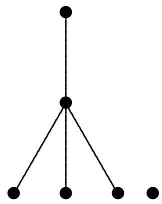
242)  360

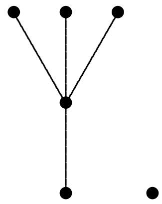
243)  360

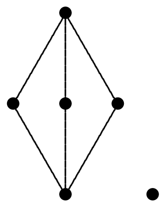
244)  360

245)  360

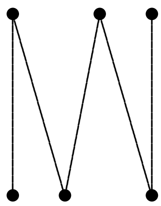
246)  360

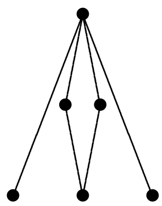
247)  120

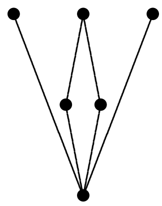
248)  120

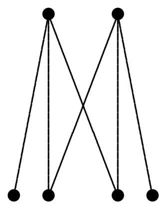
249)  120

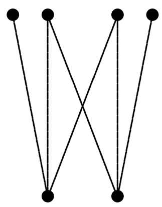
$|RB(\mathbf{6})| = 21$

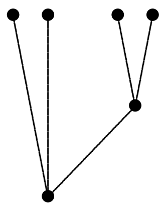
250)  720

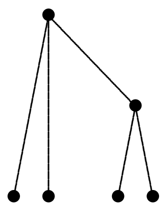
251)  180

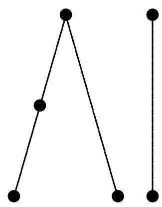
252)  180

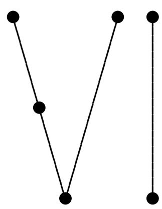
253)  180

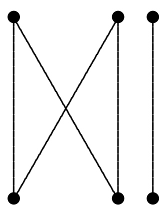
254)  180

255)  180

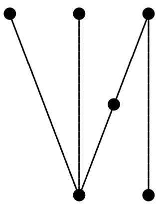
256)  180

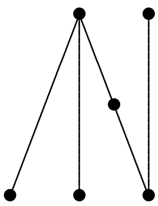
257)  720

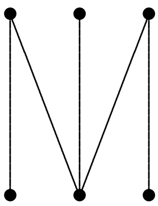
258)  720

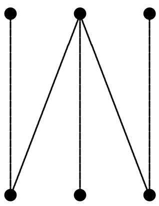
259)  180

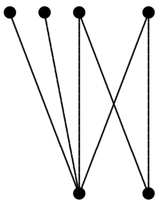
$|RB(\mathbf{6})| = 22$

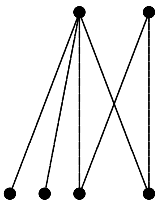
260)  360

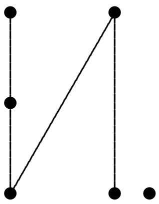
261)  360

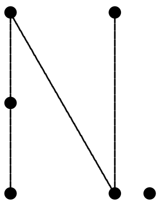
262)  360

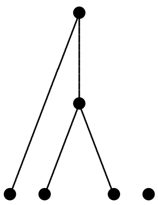
263)  360

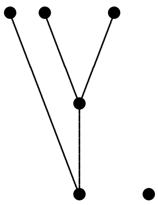
264)  180

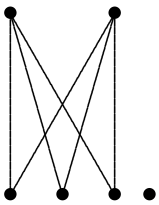
265)  180

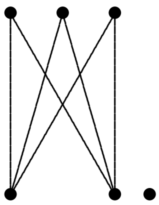
266)  720

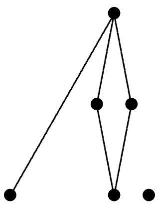
267)  720

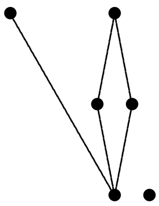
268)  360

269)  360

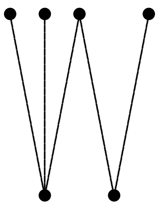
270)  60

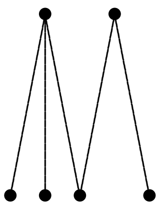
271)  60

272)  360

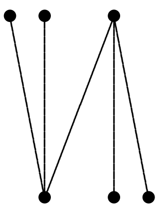
273)  360

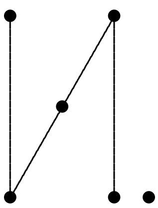
$|RB(\mathbf{6})| = 23$

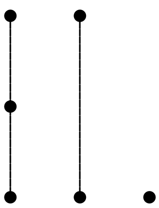
274)  360

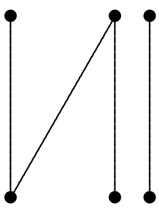
275)  360

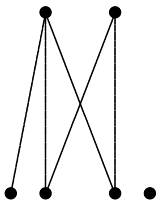
$|RB(\mathbf{6})| = 24$

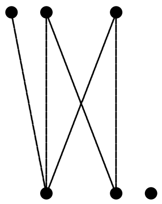
276)  180

277)  720

278)  720

279)  720

280) 
360

281) 
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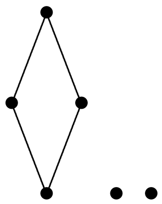
282) 
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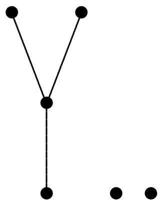
283) 
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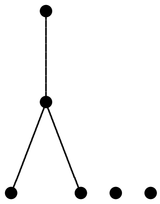
284) 
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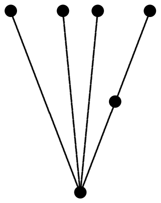
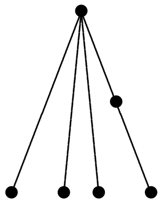
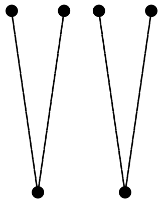
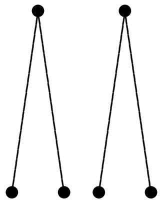
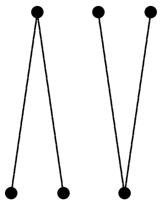
$|RB(\mathbf{6})| = 25$

285) 
120

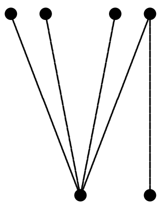
286) 
120

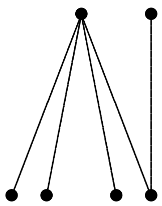
287) 
90

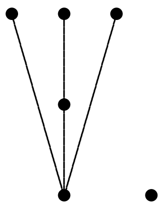
288) 
90

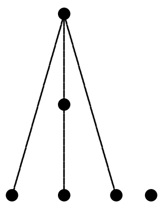
289) 
180

$|RB(\mathbf{6})| = 26$

290) 
120

291) 
120

292) 
360

293) 
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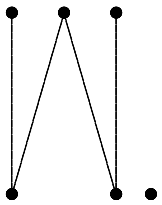
294) 
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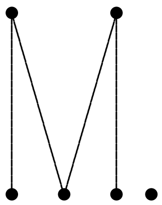
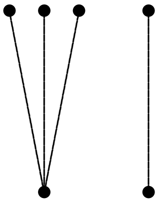
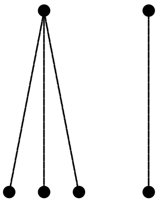
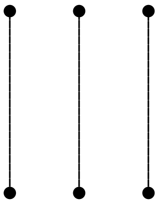
295) 
360

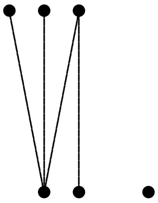
$|RB(\mathbf{6})| = 27$

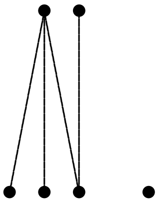
296)  120

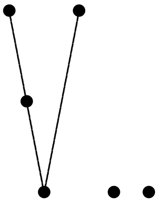
297)  120

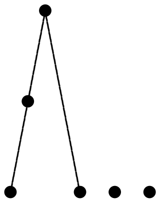
298)  120

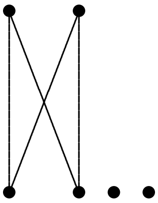
$|RB(\mathbf{6})| = 28$

299)  360

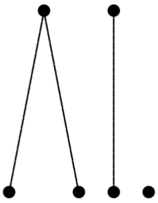
300)  360

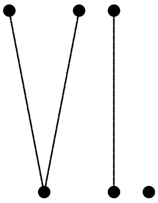
301)  360

302)  360

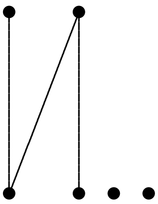
303)  90

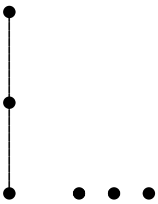
$|RB(\mathbf{6})| = 30$

304)  360

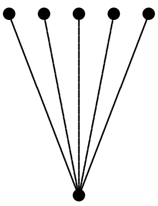
305)  360

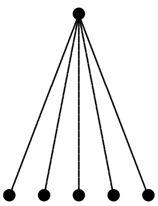
$|RB(\mathbf{6})| = 32$

306)  360

307)  120

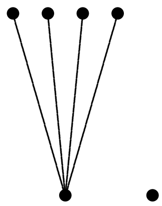
$|RB(\mathbf{6})| = 33$

308)  6

309)  6

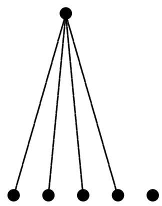
$|RB(\mathbf{6})| = 34$

310)



30

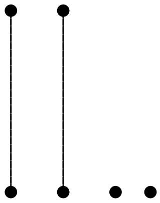
311)



30

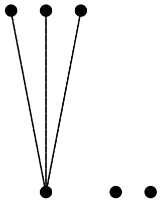
$|RB(\mathbf{6})| = 36$

312)



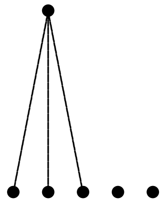
180

313)



60

314)



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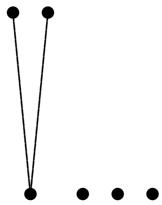
$|RB(\mathbf{6})| = 40$

315)



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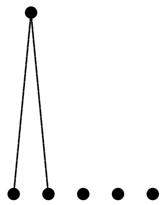
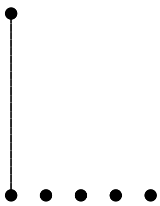
316)



60

$|RB(\mathbf{6})| = 48$

317)



30

$|RB(\mathbf{6})| = 64$

318)

1

$PNI(\mathbf{7})$

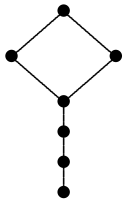
$|RB(\mathbf{7})| = 8$

1)

5.040

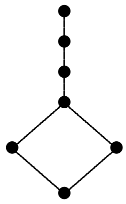
$|RB(\mathbf{7})| = 9$

2)



2.520

3)



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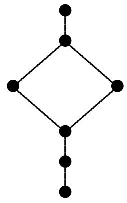
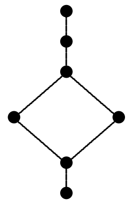


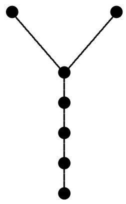
2.520

5)



2.520

6)



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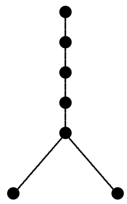
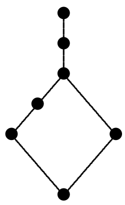
7)



2.520

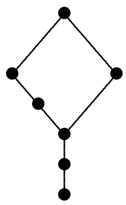
$|RB(\mathbf{7})| = 10$

8)



5.040

9)



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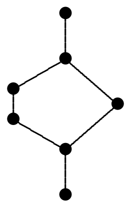
10)



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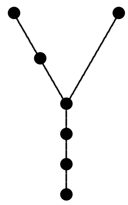
11)



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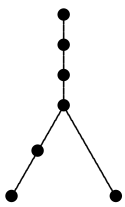
12)



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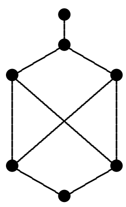
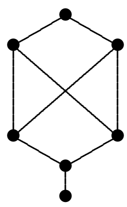
13)



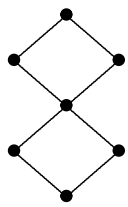
1.260

14)



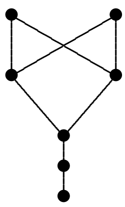
1.260

15)



1.260

16)



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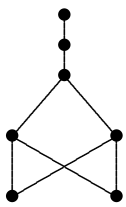
17)



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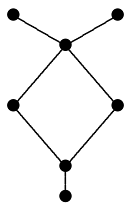
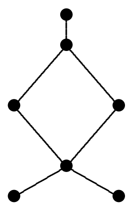
18)



1.260

19)



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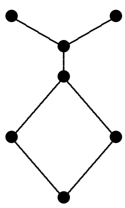
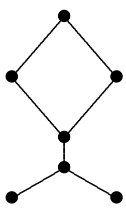
20)



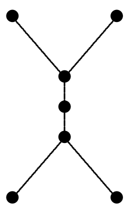
1.260

21)



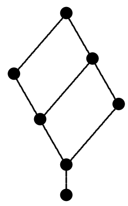
1.260

22)



1.260

$|RB(\mathbf{7})| = 11$

23) 
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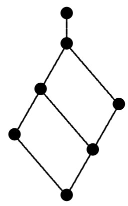
24) 
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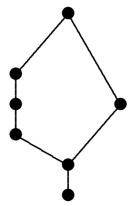
25) 
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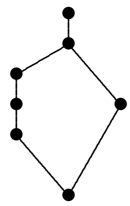
26) 
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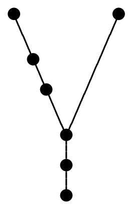
27) 
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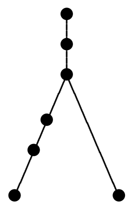
28) 
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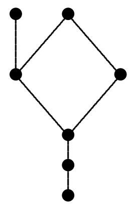
29) 
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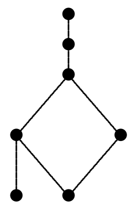
30) 
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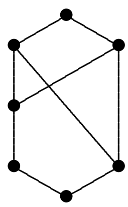
31) 
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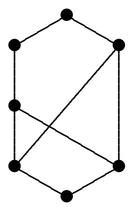
32) 
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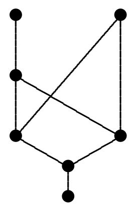
33) 
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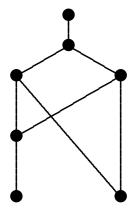
34) 
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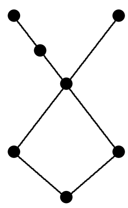
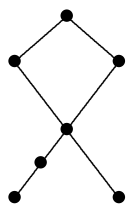
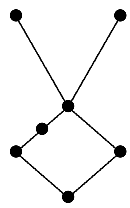
35) 
2.520

36) 
2.520

37) 
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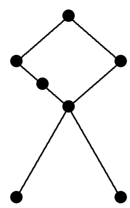
38) 
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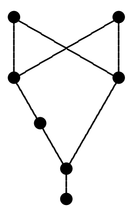
39) 
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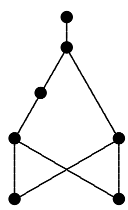
40) 
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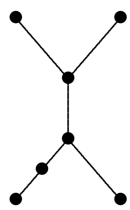
41) 
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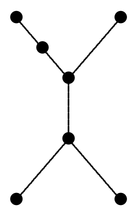
42) 
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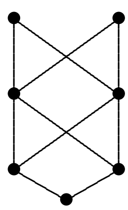
43) 
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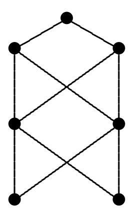
44) 
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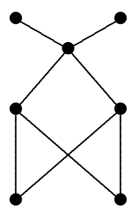
45) 
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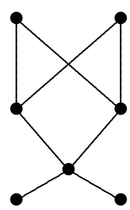
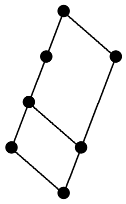
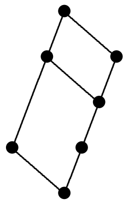
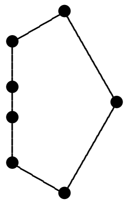
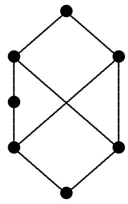
46) 
630

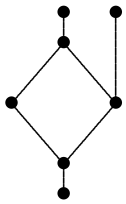
$|RB(\mathbf{7})| = 12$

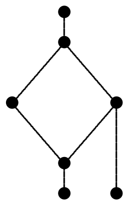
47)  5.040

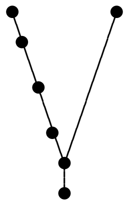
48)  5.040

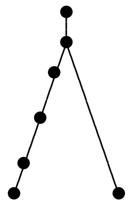
49)  5.040

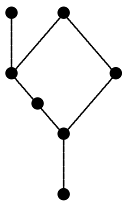
50)  5.040

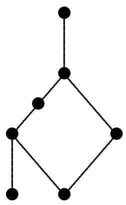
51)  5.040

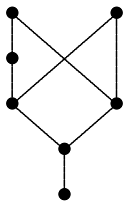
52)  5.040

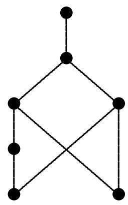
53)  5.040

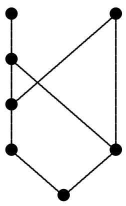
54)  5.040

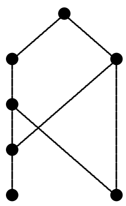
55)  5.040

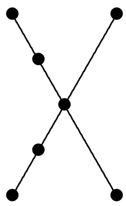
56)  5.040

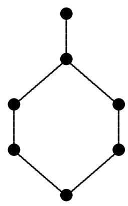
57)  5.040

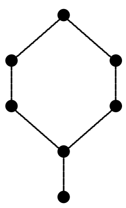
58)  5.040

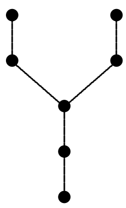
59)  5.040

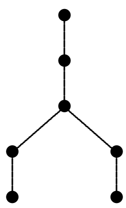
60)  5.040

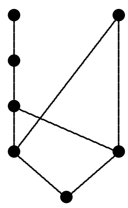
61)  5.040

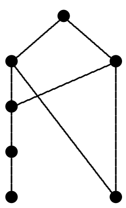
62)  2.520

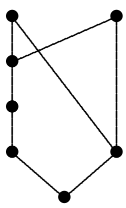
63)  2.520

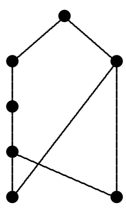
64)  2.520

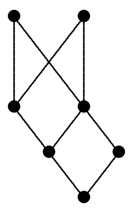
65)  2.520

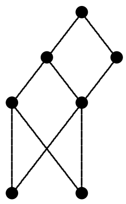
66)  2.520

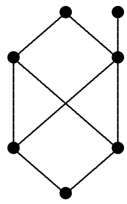
67)  2.520

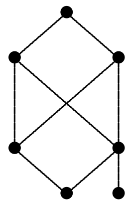
68)  2.520

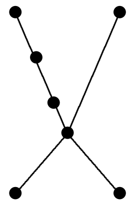
69)  2.520

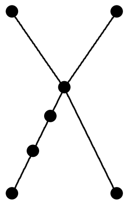
70)  2.520

71)

2.520

72)

2.520

73)

2.520

74)

2.520

75)

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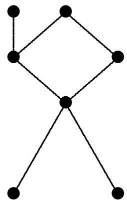
76)

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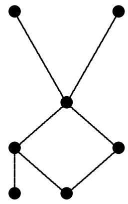
77)

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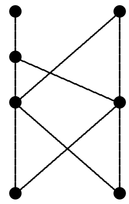
78)

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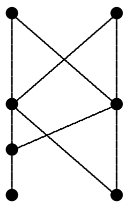
79)

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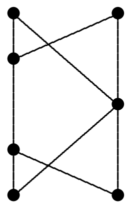
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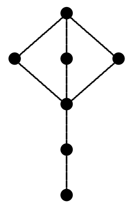
81)

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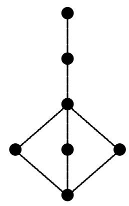
82)

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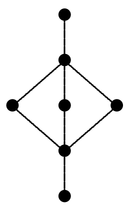
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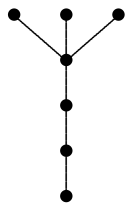
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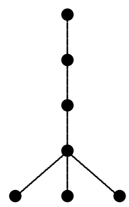
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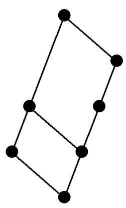
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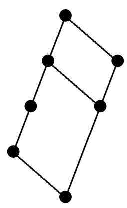
87)

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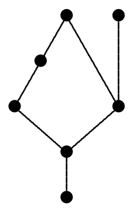
88)

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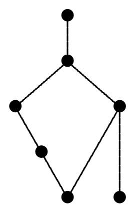
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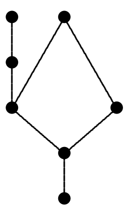
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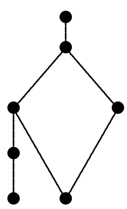
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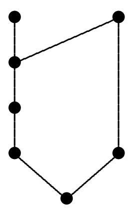
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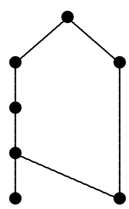
93)

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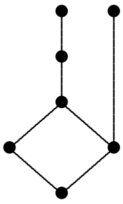
94)

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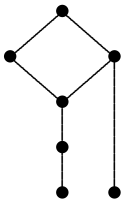
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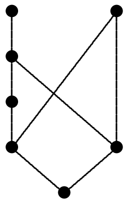
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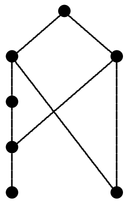
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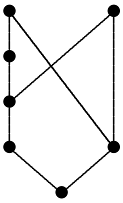
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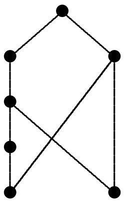
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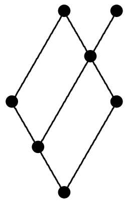
100)

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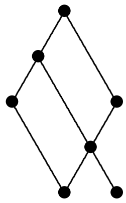
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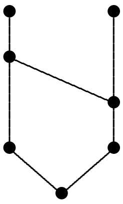
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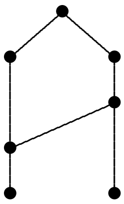
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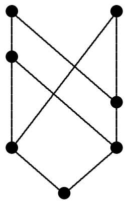
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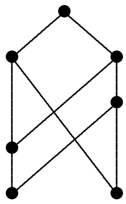
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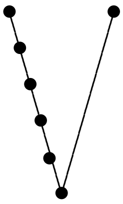
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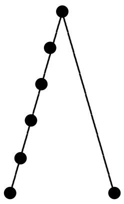
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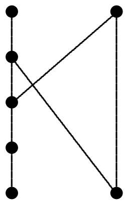
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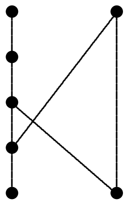
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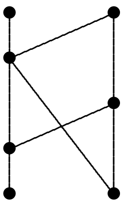
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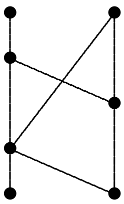
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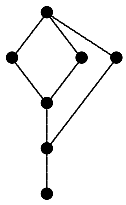
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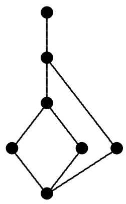
113)

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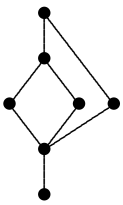
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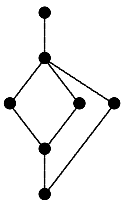
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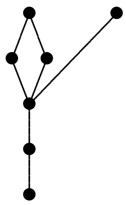
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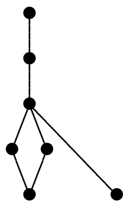
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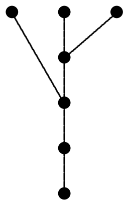
118) 
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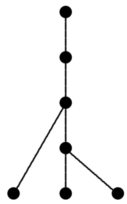
119) 
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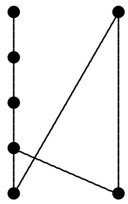
120) 
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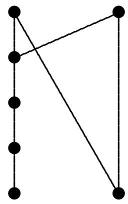
121) 
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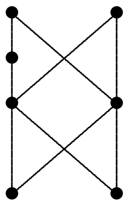
122) 
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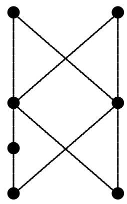
123) 
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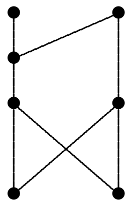
124) 
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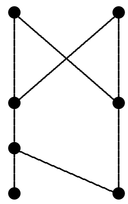
125) 
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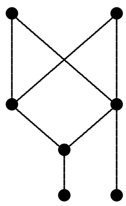
126) 
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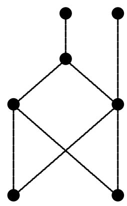
127) 
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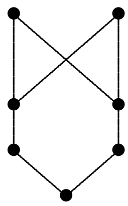
128) 
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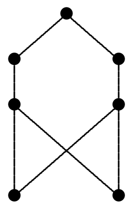
129) 
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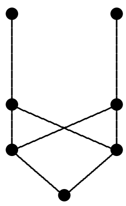
130) 
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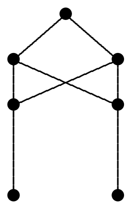
131) 
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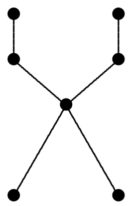
132) 
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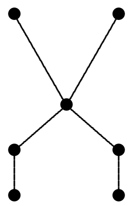
133) 
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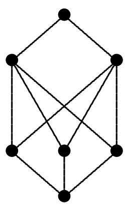
134) 
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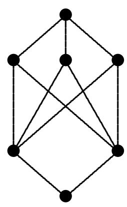
135) 
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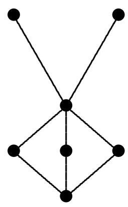
136) 
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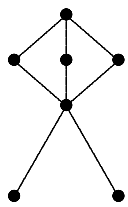
137) 
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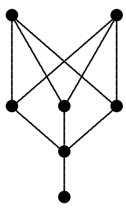
138) 
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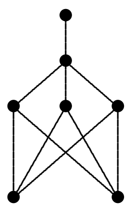
139) 
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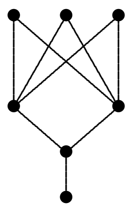
140) 
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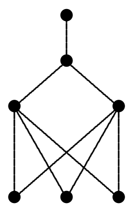
141) 
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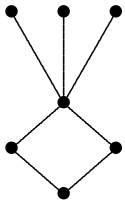
142) 
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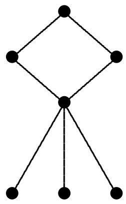
143) 
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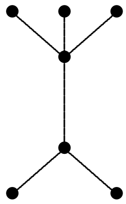
144) 
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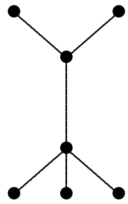
145) 
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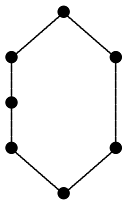
146) 
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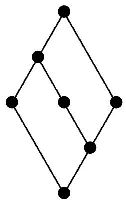
147) 
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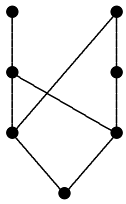
148) 
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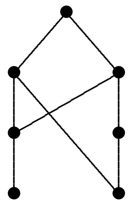
149) 
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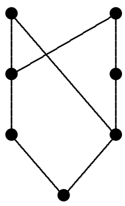
150) 
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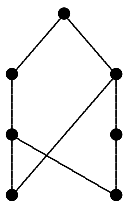
151) 
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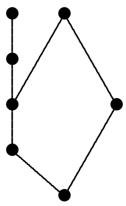
152) 
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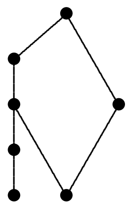
153) 
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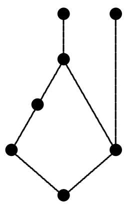
154) 
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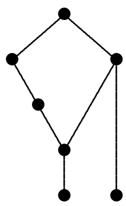
155) 
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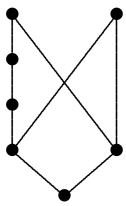
156) 
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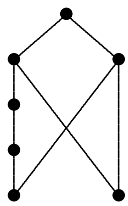
157) 
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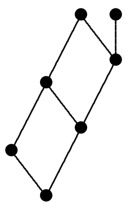
158) 
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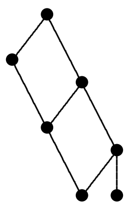
159) 
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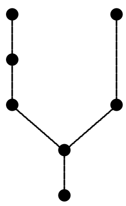
160) 
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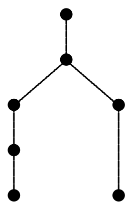
161) 
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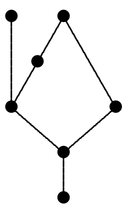
162) 
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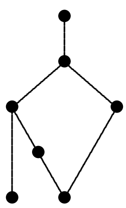
163) 
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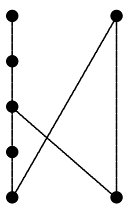
164) 
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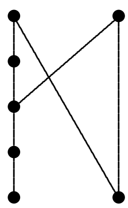
165) 
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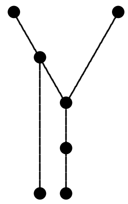
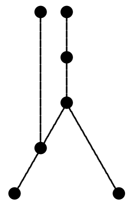
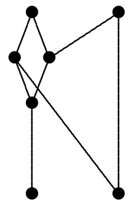
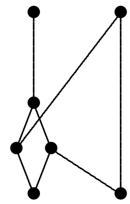
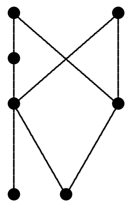
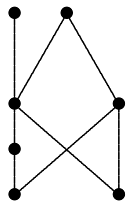
166)  5.040

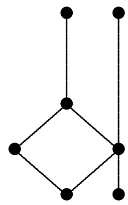
167)  5.040

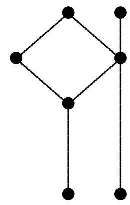
168)  5.040

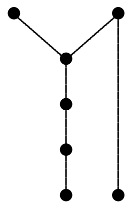
169)  5.040

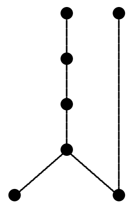
170)  5.040

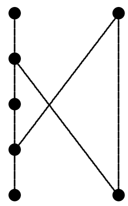
171)  5.040

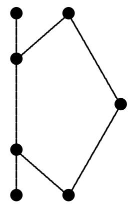
172)  5.040

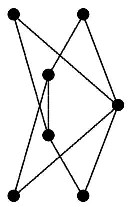
173)  5.040

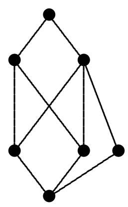
174)  5.040

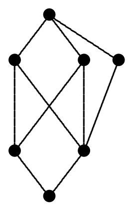
175)  5.040

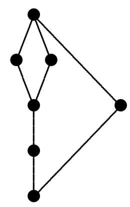
176)  5.040

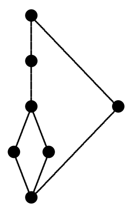
177)  5.040

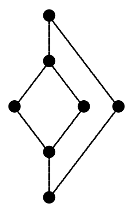
178)  5.040

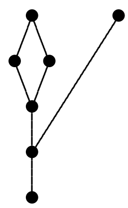
179)  2.520

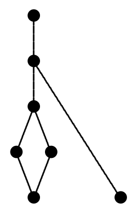
180)  2.520

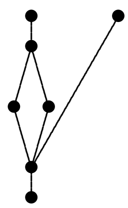
181)  2.520

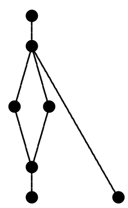
182)  2.520

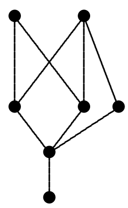
183)  2.520

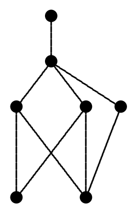
184)  2.520

185)  2.520

186)  2.520

187)  2.520

188)  2.520

189)  2.520

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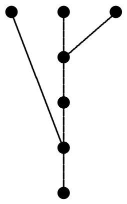
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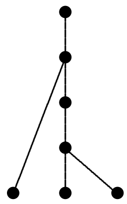
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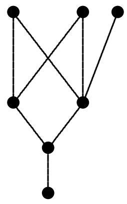
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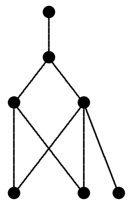
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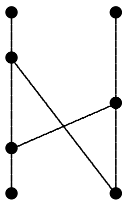
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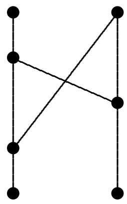
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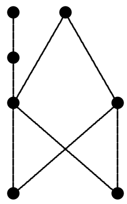
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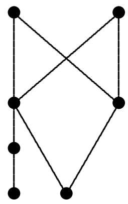
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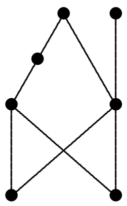
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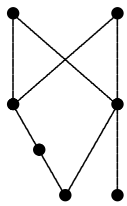
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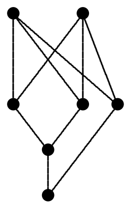
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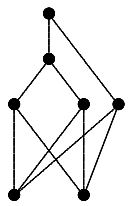
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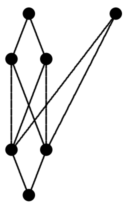
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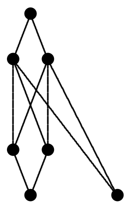
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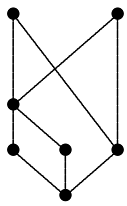
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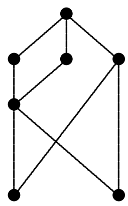
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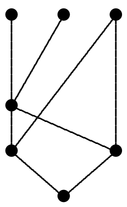
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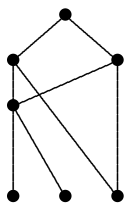
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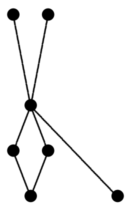
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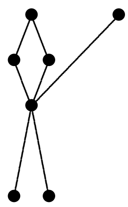
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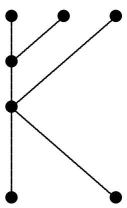
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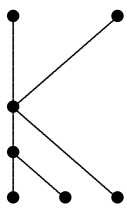
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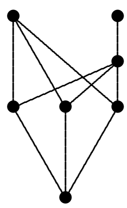
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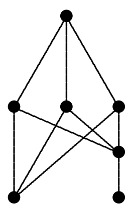
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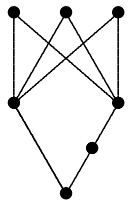
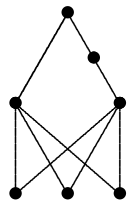
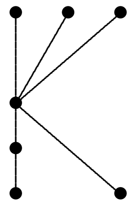
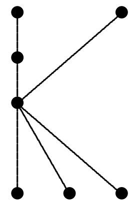
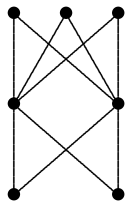
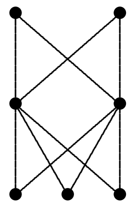
214)  840

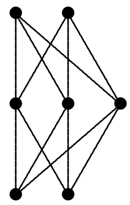
215)  840

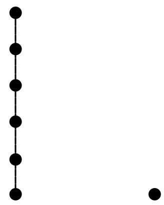
216)  840

217)  840

218)  210

219)  210

220)  210

221)  5.040

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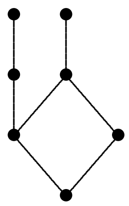
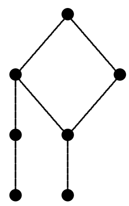
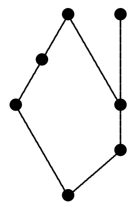
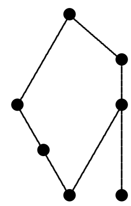
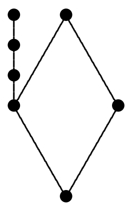
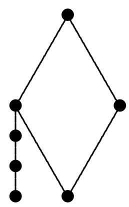
222)  5.040

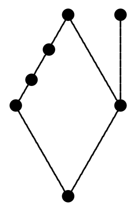
223)  5.040

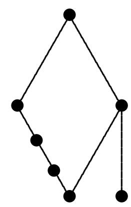
224)  5.040

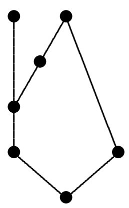
225)  5.040

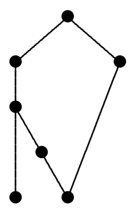
226)  5.040

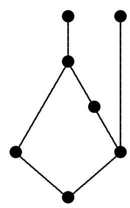
227)  5.040

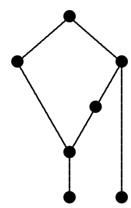
228)  5.040

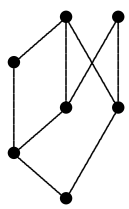
229)  5.040

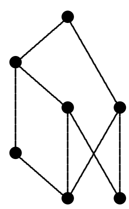
230)  5.040

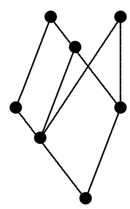
231)  5.040

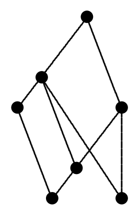
232)  5.040

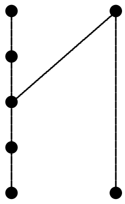
233)  5.040

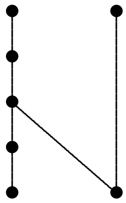
234)  5.040

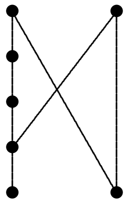
235)  5.040

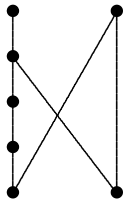
236)  5.040

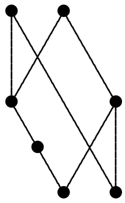
237)  5.040

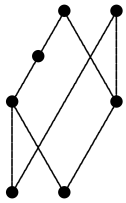
238)  5.040

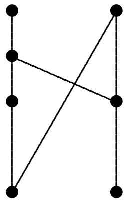
239)  5.040

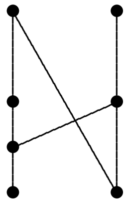
240)  5.040

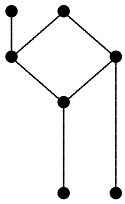
241)  5.040

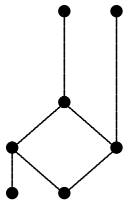
242)  5.040

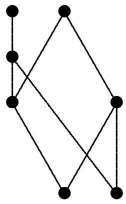
243)  5.040

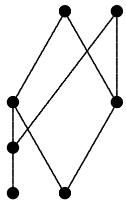
244)  5.040

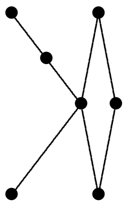
245)  5.040

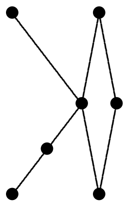
246)  5.040

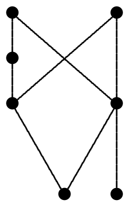
247)  5.040

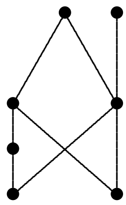
248)  5.040

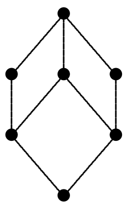
249)  5.040

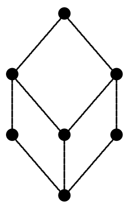
250)  5.040

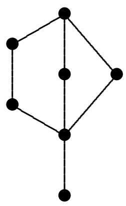
251)  5.040

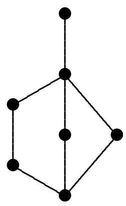
252)  5.040

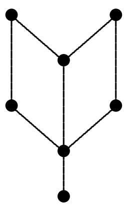
253)  5.040

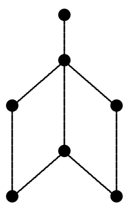
254)  2.520

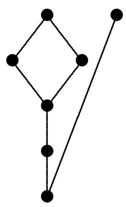
255)  2.520

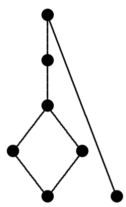
256)  2.520

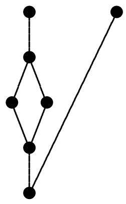
257)  2.520

258)  2.520

259)  2.520

260)  2.520

261)  2.520

262) 
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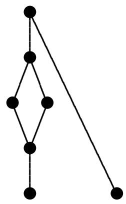
263) 
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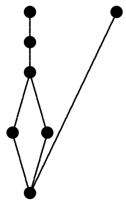
264) 
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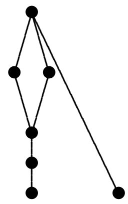
265) 
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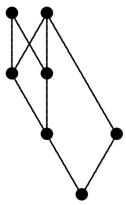
266) 
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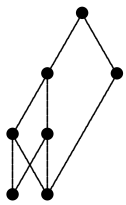
267) 
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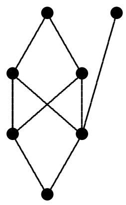
268) 
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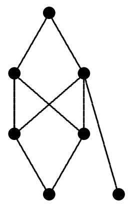
269) 
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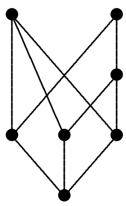
270) 
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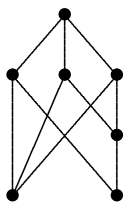
271) 
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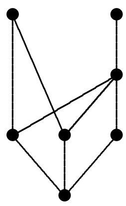
272) 
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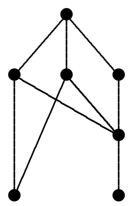
273) 
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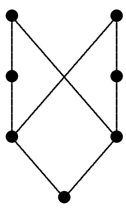
274) 
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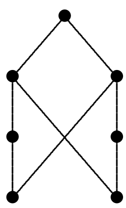
275) 
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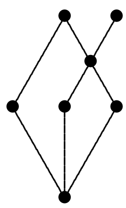
276) 
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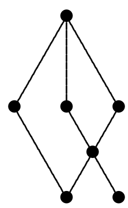
277) 
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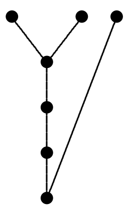
278) 
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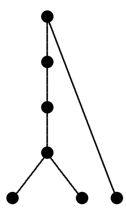
279) 
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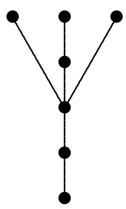
280) 
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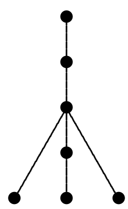
281) 
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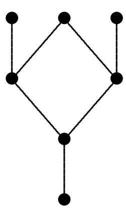
282) 
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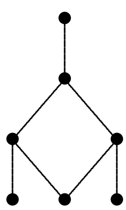
283) 
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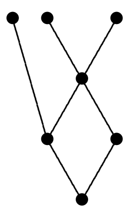
284) 
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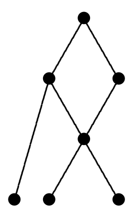
285) 
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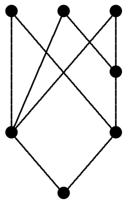
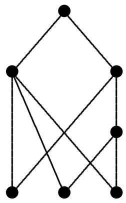
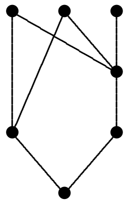
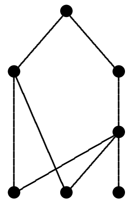
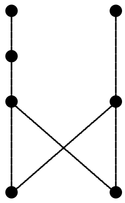
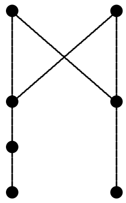
286)  2.520

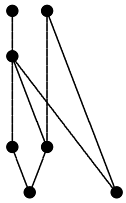
287)  2.520

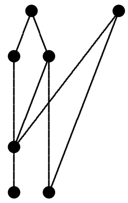
288)  2.520

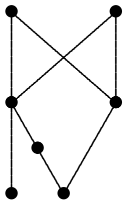
289)  2.520

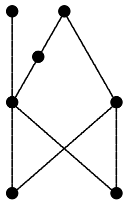
290)  2.520

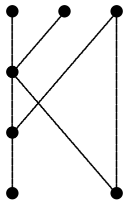
291)  2.520

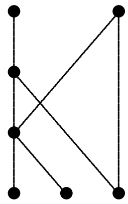
292)  2.520

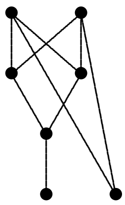
293)  2.520

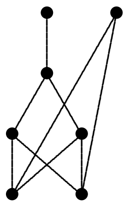
294)  2.520

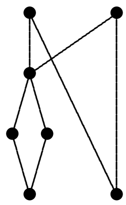
295)  2.520

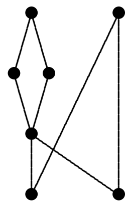
296)  2.520

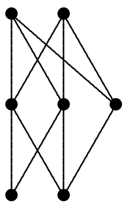
297)  2.520

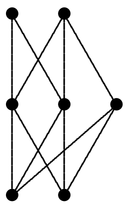
298)  1.260

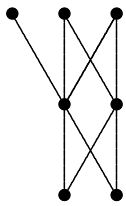
299)  1.260

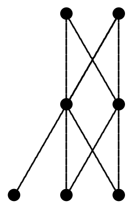
300)  1.260

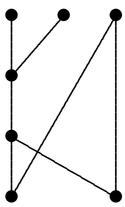
301)  1.260

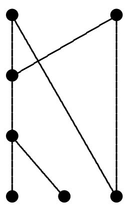
302)  1.260

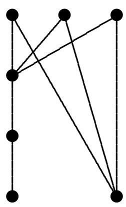
303)  1.260

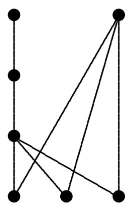
304)  1.260

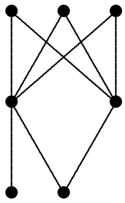
305)  1.260

306)  1.260

307)  1.260

308)  840

309)  840

310) 

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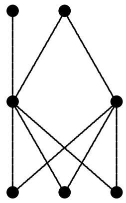
311) 

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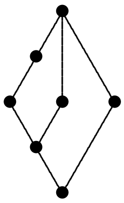
$|RB(\mathbf{7})| = 16$

312) 

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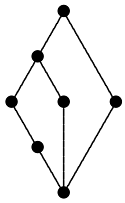
313) 

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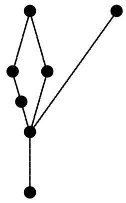
314) 

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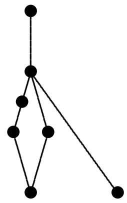
315) 

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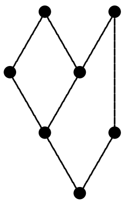
316) 

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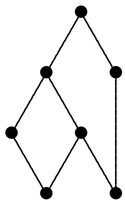
317) 

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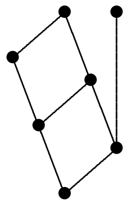
318) 

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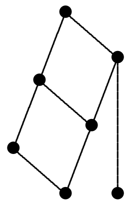
319) 

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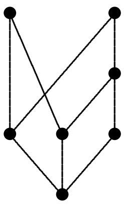
320) 

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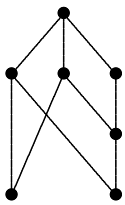
321) 

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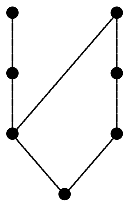
322) 

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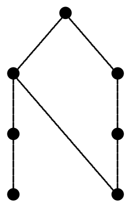
323) 

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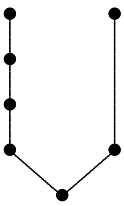
324) 

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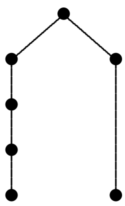
325) 

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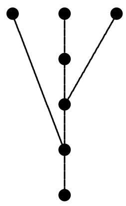
326) 

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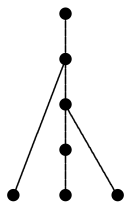
327) 

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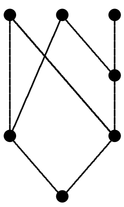
328) 

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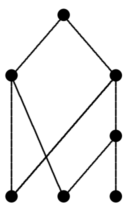
329) 

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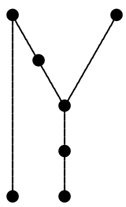
330) 

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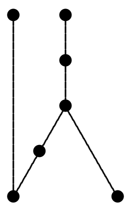
331) 

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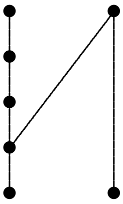
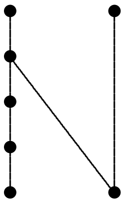
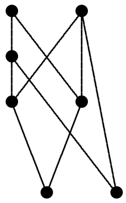
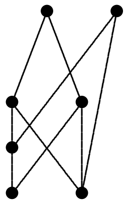
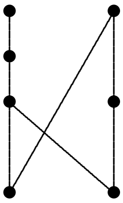
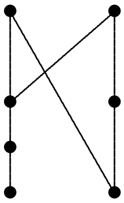
332)  5.040

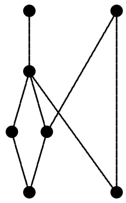
333)  5.040

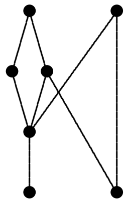
334)  5.040

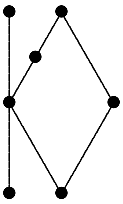
335)  5.040

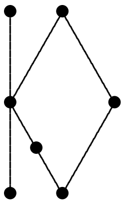
336)  5.040

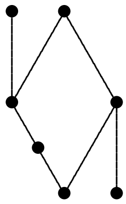
337)  5.040

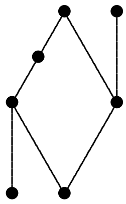
338)  5.040

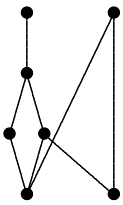
339)  5.040

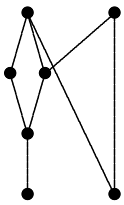
340)  5.040

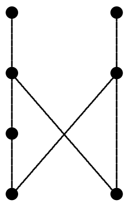
341)  5.040

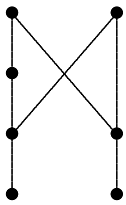
342)  5.040

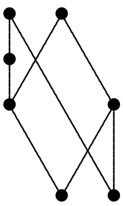
343)  5.040

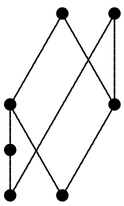
344)  5.040

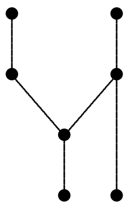
345)  5.040

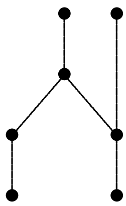
346)  5.040

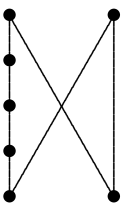
347)  5.040

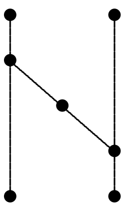
348)  5.040

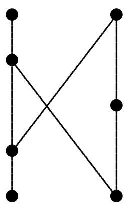
349)  5.040

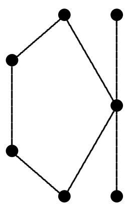
350)  5.040

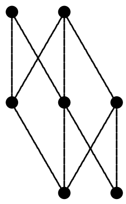
351)  5.040

352)  5.040

353)  5.040

354)  5.040

355)  5.040

356) 
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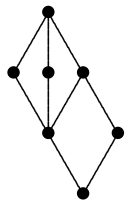
357) 
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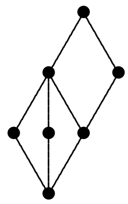
358) 
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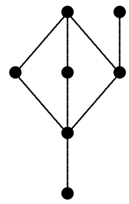
359) 
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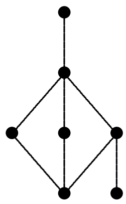
360) 
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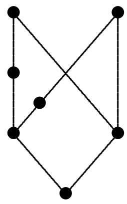
361) 
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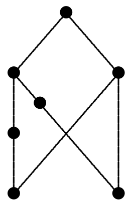
362) 
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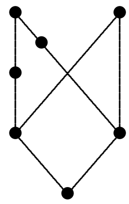
363) 
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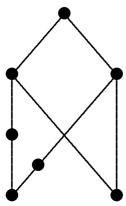
364) 
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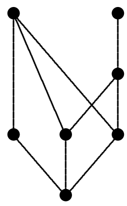
365) 
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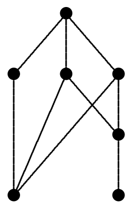
366) 
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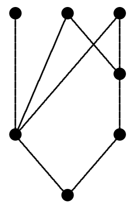
367) 
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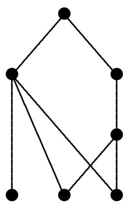
368) 
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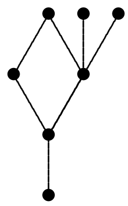
369) 
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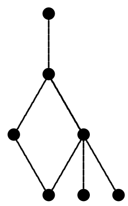
370) 
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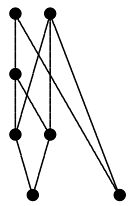
371) 
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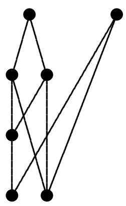
372) 
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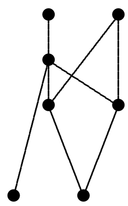
373) 
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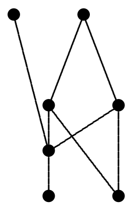
374) 
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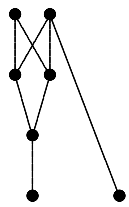
375) 
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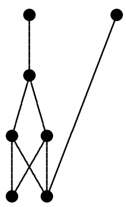
376) 
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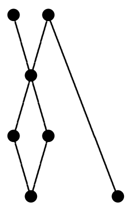
377) 
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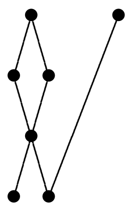
378) 
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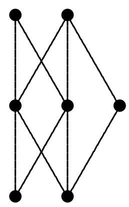
379) 
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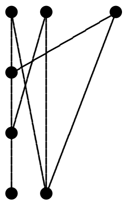
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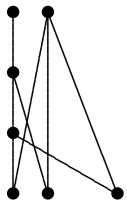
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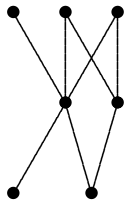
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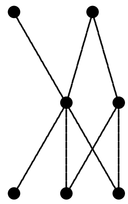
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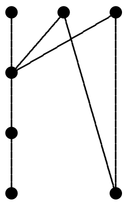
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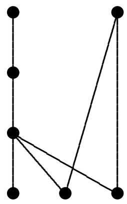
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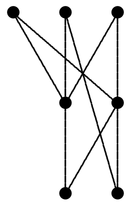
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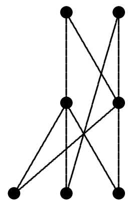
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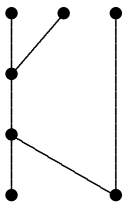
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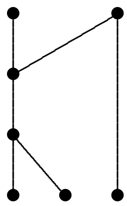
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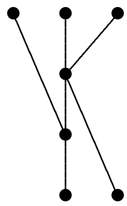
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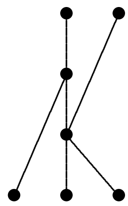
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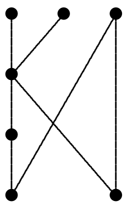
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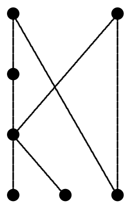
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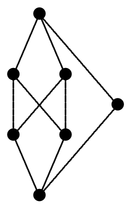
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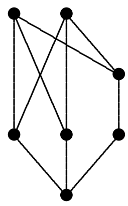
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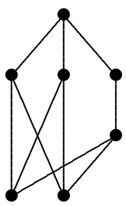
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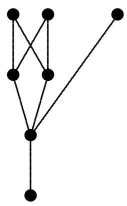
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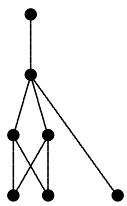
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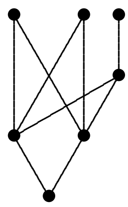
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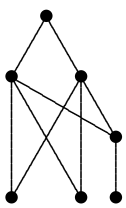
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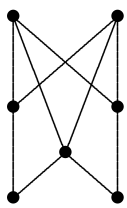
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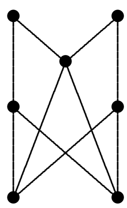
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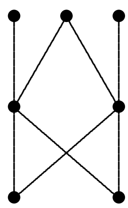
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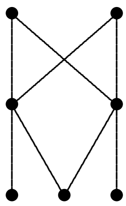
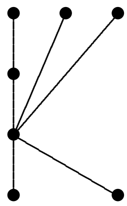
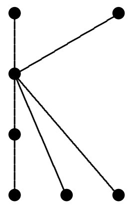
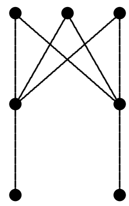
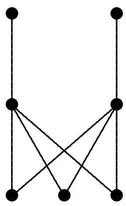
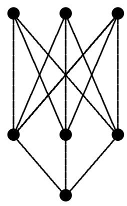
404)  1.260

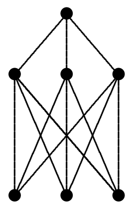
405)  1.260

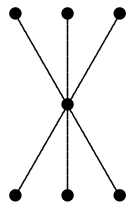
406)  1.260

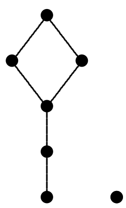
407)  420

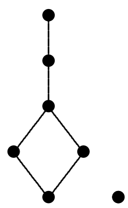
408)  420

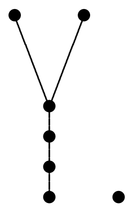
409)  140

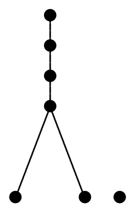
410)  140

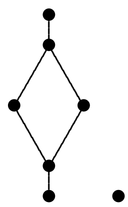
411)  140

412)  2.520

413)  2.520

414)  2.520

415)  2.520

416)  2.520

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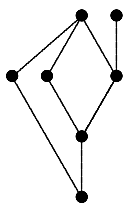
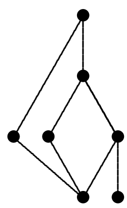
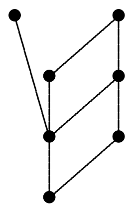
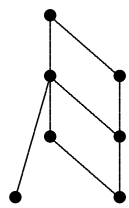
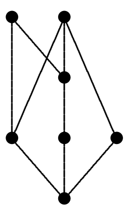
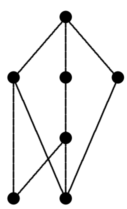
417)  5.040

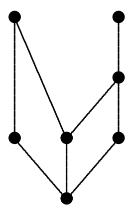
418)  5.040

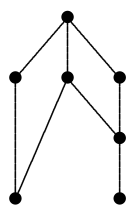
419)  5.040

420)  5.040

421)  5.040

422)  5.040

423)  5.040

424)  5.040

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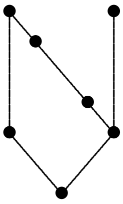
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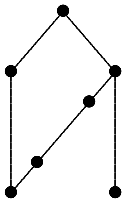
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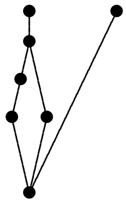
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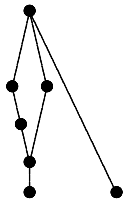
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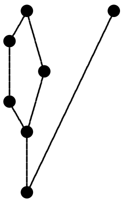
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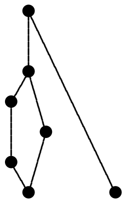
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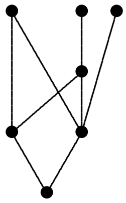
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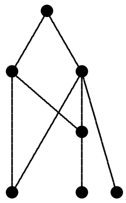
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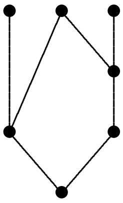
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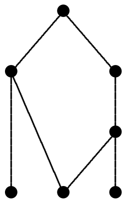
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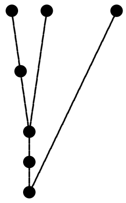
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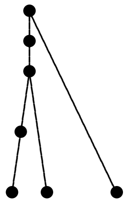
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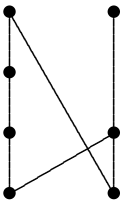
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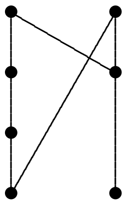
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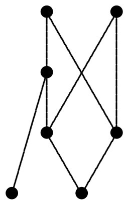
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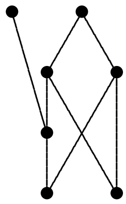
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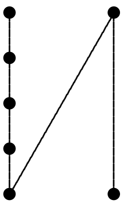
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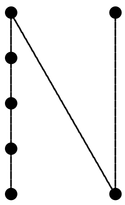
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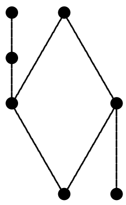
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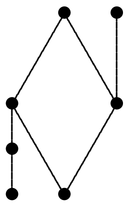
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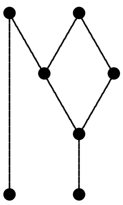
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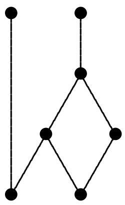
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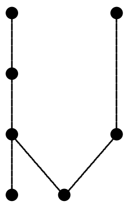
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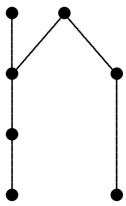
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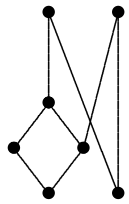
449) 
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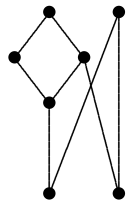
450) 
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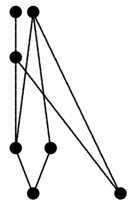
451) 
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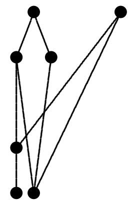
452) 
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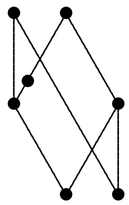
453) 
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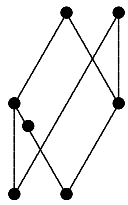
454) 
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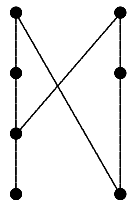
455) 
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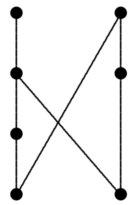
456) 
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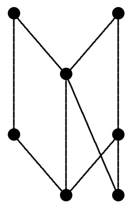
457) 
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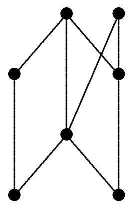
458) 
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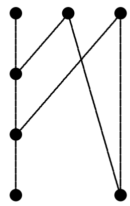
459) 
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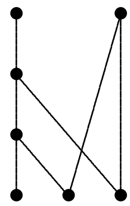
460) 
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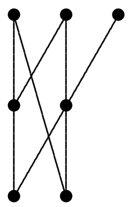
461) 
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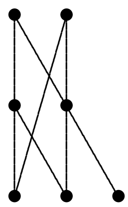
462) 
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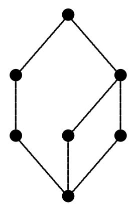
463) 
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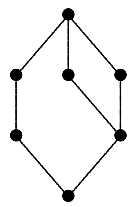
464) 
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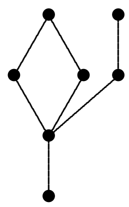
465) 
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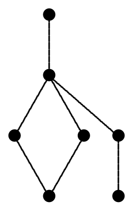
466) 
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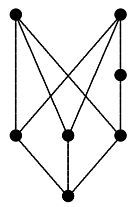
467) 
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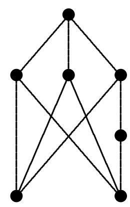
468) 
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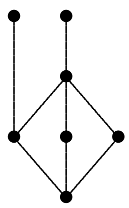
469) 
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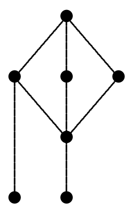
470) 
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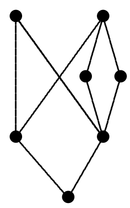
471) 
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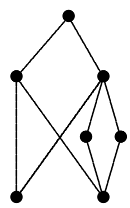
472) 
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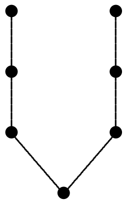
473) 
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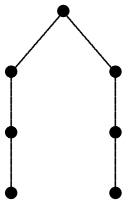
474) 
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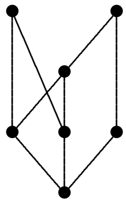
475) 
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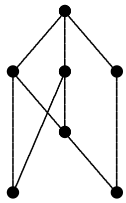
476) 
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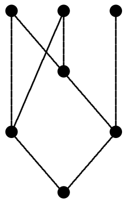
477) 
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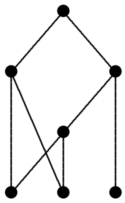
478) 
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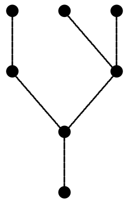
479) 
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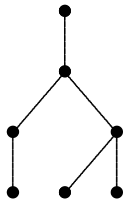
480) 
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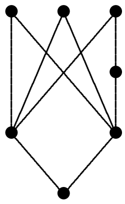
481) 
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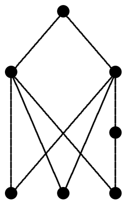
482) 
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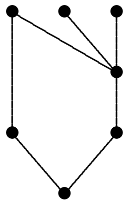
483) 
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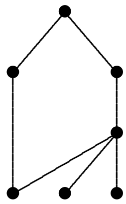
484) 
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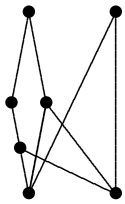
485) 
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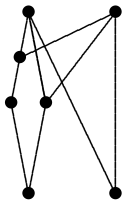
486) 
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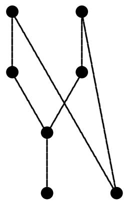
487) 
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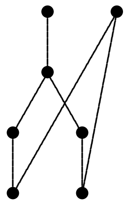
488) 
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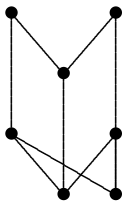
489) 
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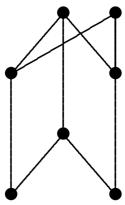
490) 
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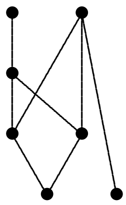
491) 
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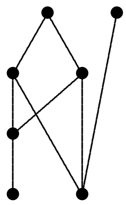
492) 
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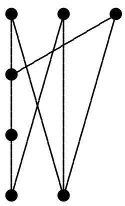
493) 
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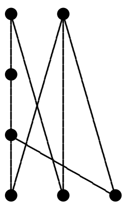
494) 
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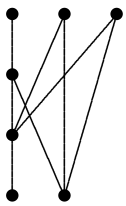
495) 
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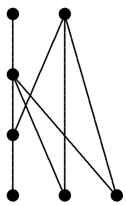
496) 
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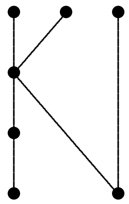
497) 
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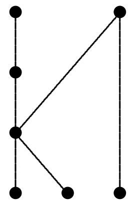
498) 
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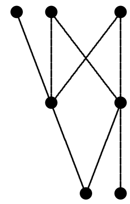
499) 
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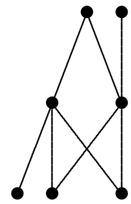
500) 
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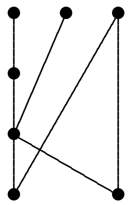
501) 
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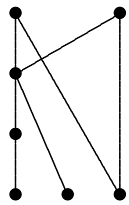
502) 
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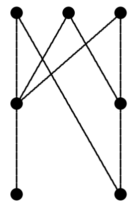
503) 
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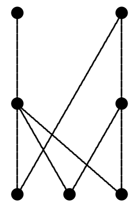
504) 
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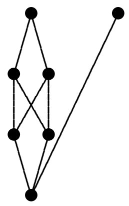
505) 
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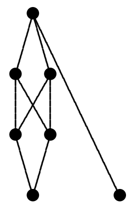
506) 
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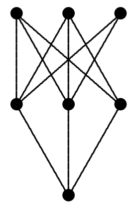
507) 
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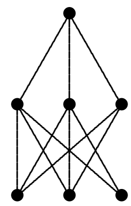
508) 
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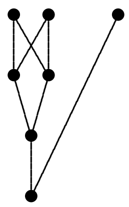
509) 
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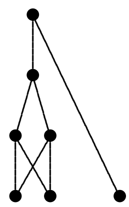
510) 
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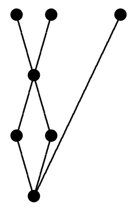
511) 
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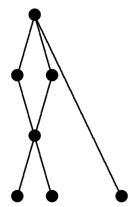
512) 
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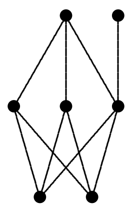
513) 
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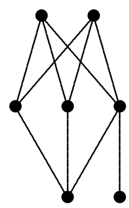
514) 
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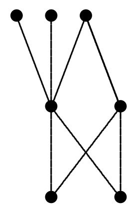
515) 
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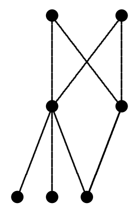
516) 
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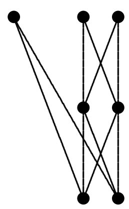
517) 
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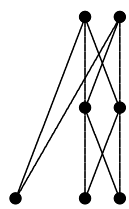
518) 
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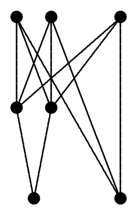
519) 
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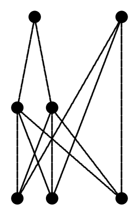
520) 
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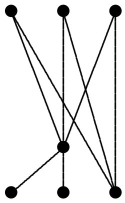
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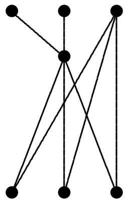
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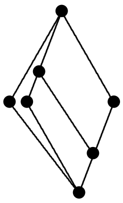
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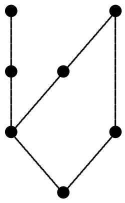
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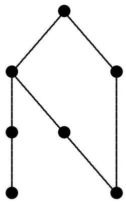
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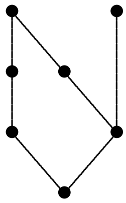
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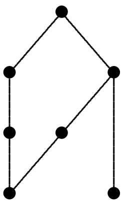
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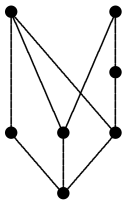
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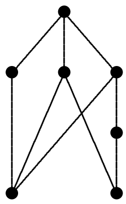
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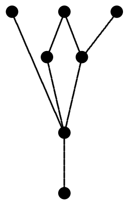
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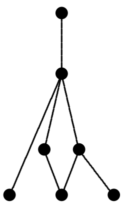
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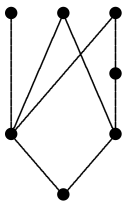
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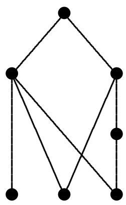
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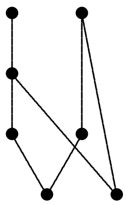
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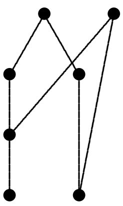
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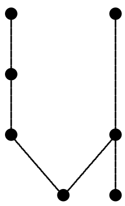
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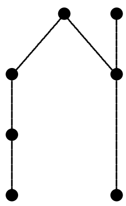
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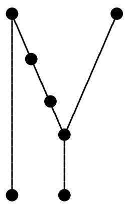
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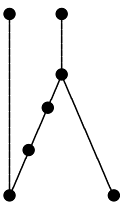
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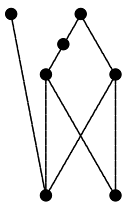
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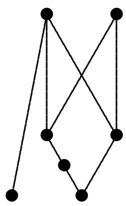
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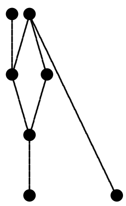
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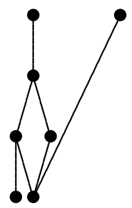
543) 
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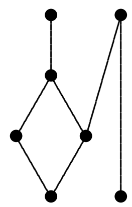
544) 
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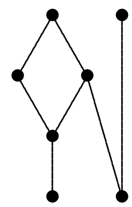
545) 
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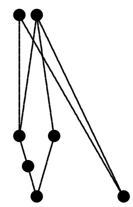
546) 
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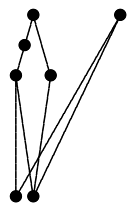
547) 
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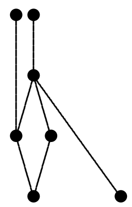
548) 
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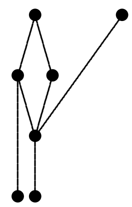
549) 
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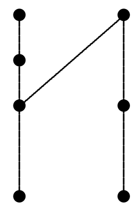
550) 
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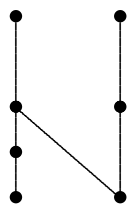
551) 
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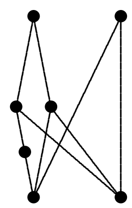
552) 
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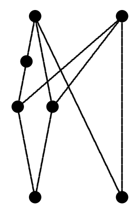
553) 
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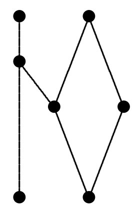
554) 
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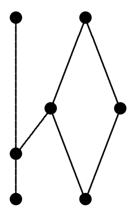
555) 
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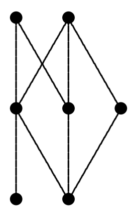
556) 
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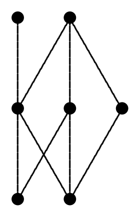
557) 
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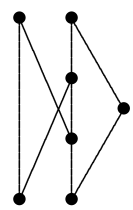
558) 
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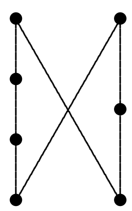
559) 
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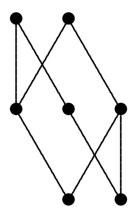
560) 
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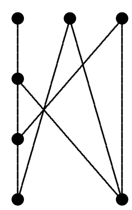
561) 
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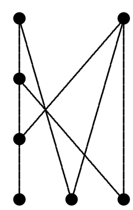
562) 
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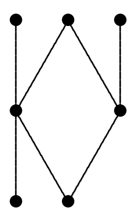
563) 
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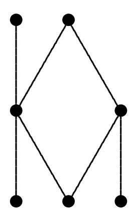
564) 
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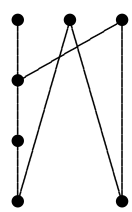
565) 
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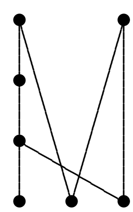
566) 
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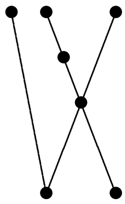
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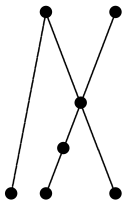
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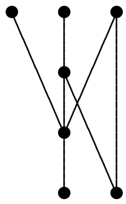
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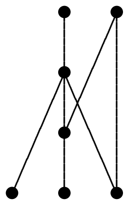
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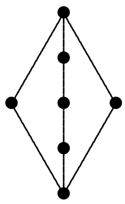
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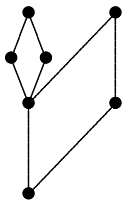
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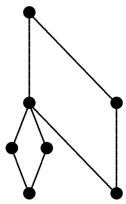
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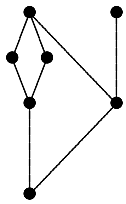
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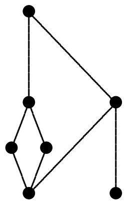
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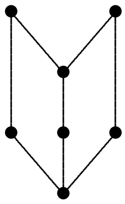
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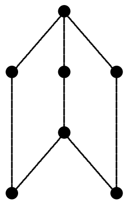
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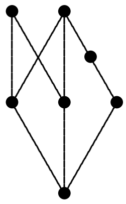
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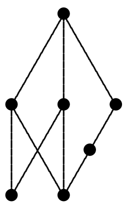
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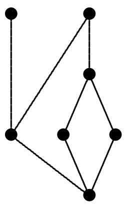
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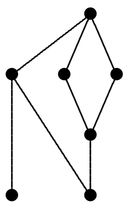
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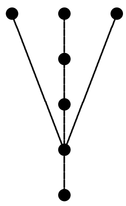
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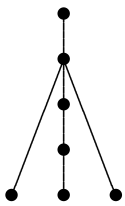
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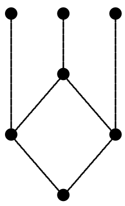
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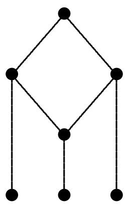
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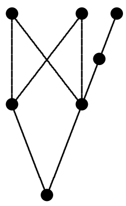
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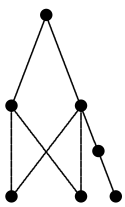
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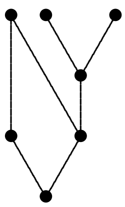
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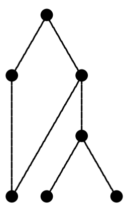
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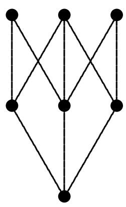
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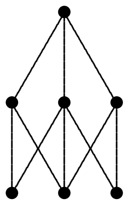
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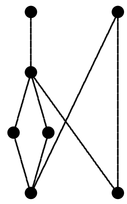
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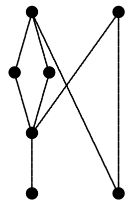
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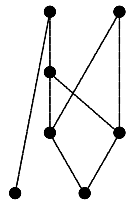
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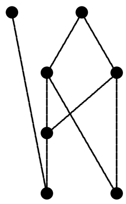
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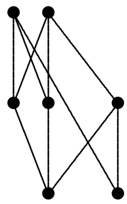
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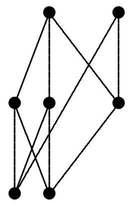
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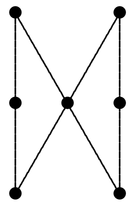
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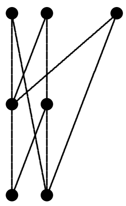
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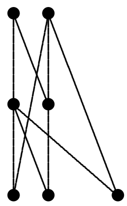
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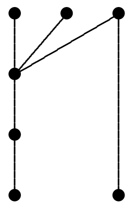
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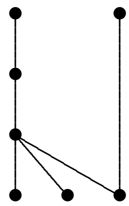
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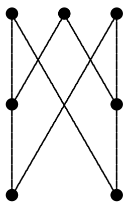
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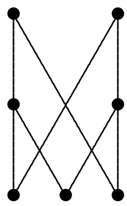
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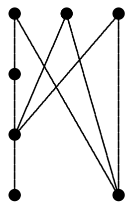
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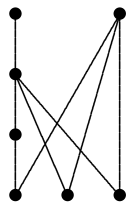
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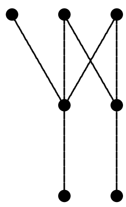
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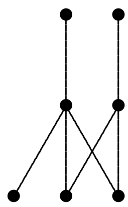
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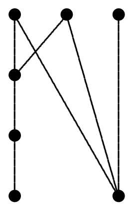
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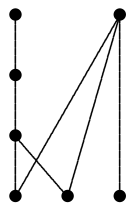
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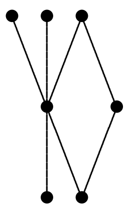
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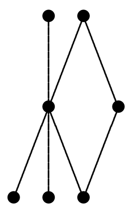
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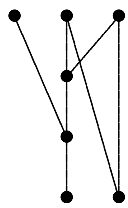
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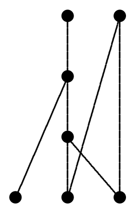
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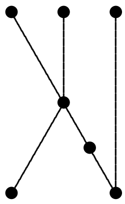
615) 
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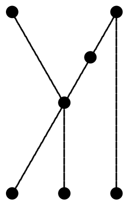
616) 
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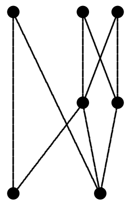
617) 
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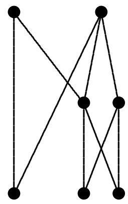
618) 
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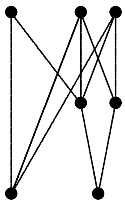
619) 
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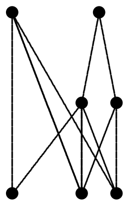
620) 
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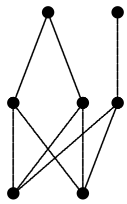
621) 
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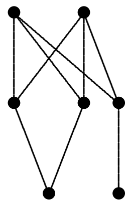
622) 
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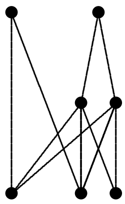
623) 
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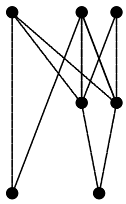
624) 
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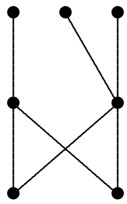
625) 
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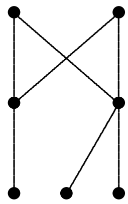
626) 
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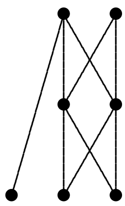
627) 
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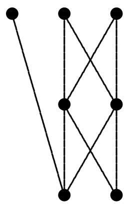
628) 
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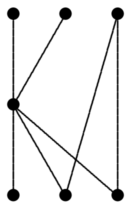
629) 
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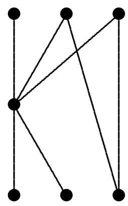
630) 
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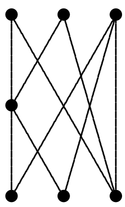
631) 
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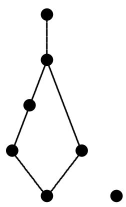
632) 
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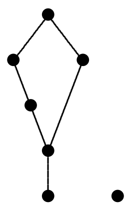
633) 
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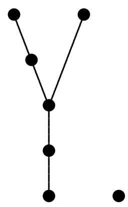
634) 
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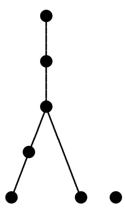
635) 
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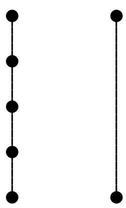
636) 
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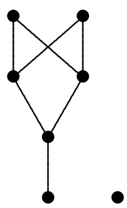
637) 
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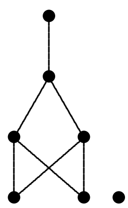
638) 
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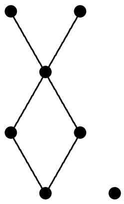
639) 
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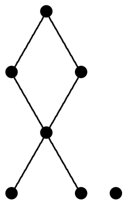
640) 
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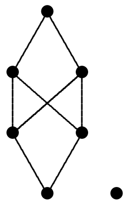
641) 
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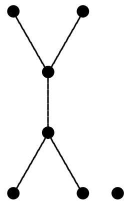
642) 
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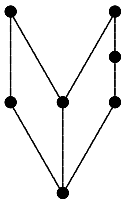
643) 
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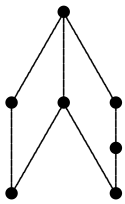
644) 
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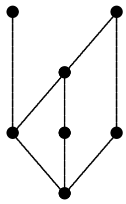
645) 
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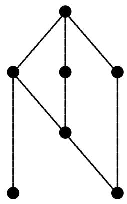
646) 
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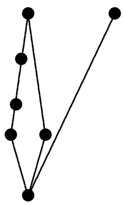
647) 
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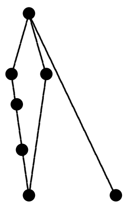
648) 
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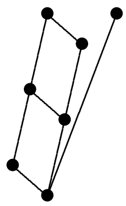
649) 
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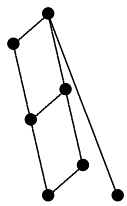
650) 
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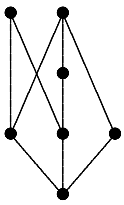
651) 
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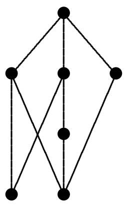
652) 
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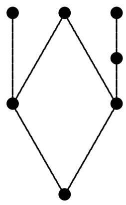
653) 
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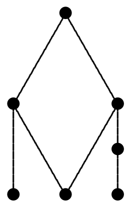
654) 
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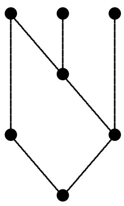
655) 
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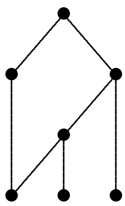
656) 
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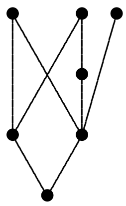
657) 
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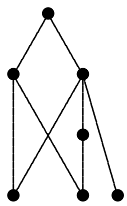
658) 
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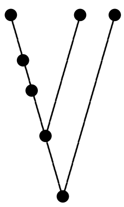
659) 
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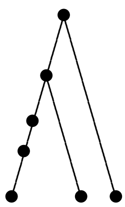
660) 
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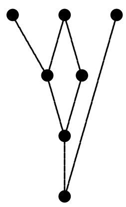
661) 
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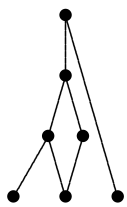
662) 
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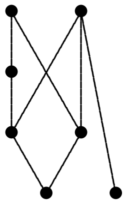
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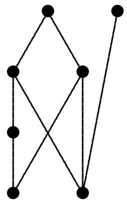
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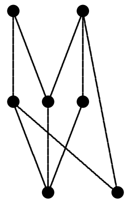
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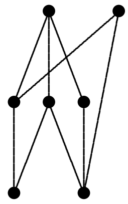
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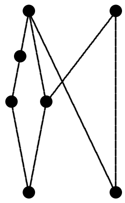
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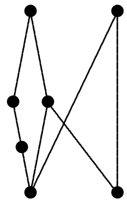
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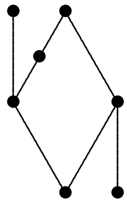
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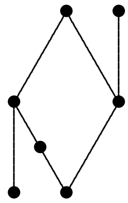
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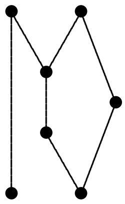
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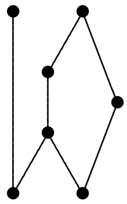
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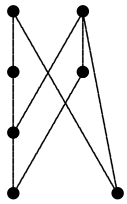
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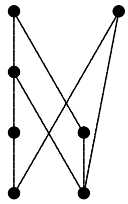
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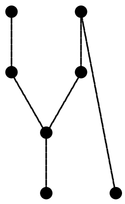
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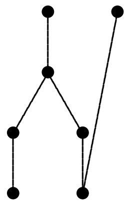
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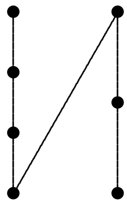
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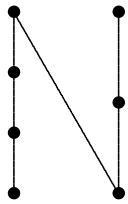
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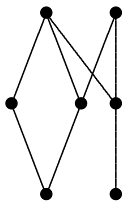
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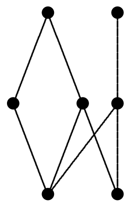
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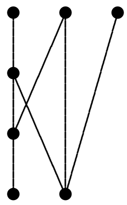
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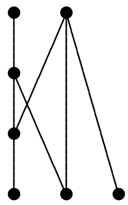
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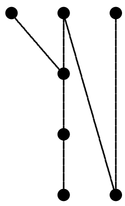
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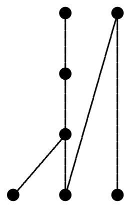
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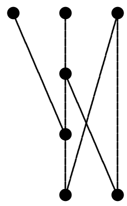
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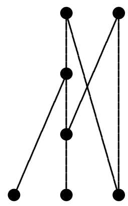
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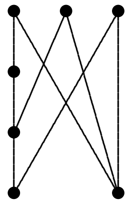
687) 
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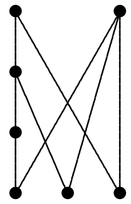
688) 
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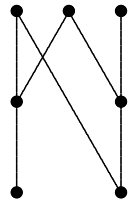
689) 
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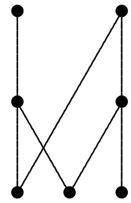
690) 
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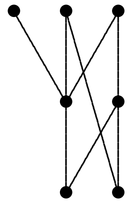
691) 
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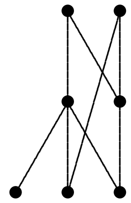
692) 
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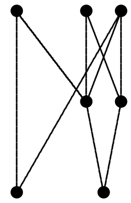
693) 
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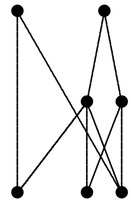
694) 
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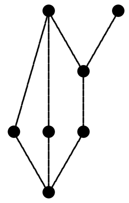
695) 
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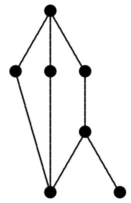
696) 
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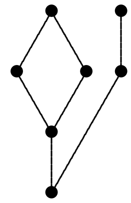
697) 
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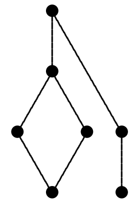
698) 
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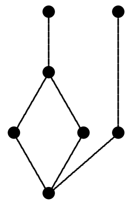
699) 
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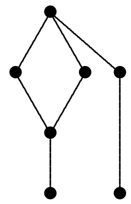
700) 
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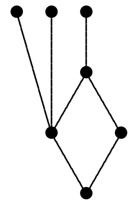
701) 
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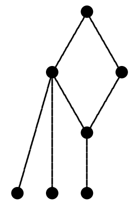
702) 
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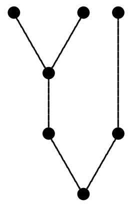
703) 
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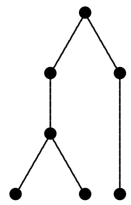
704) 
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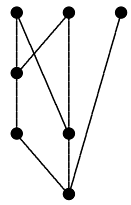
705) 
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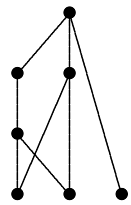
706) 
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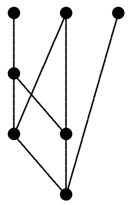
707) 
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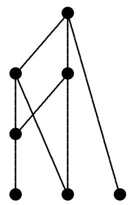
708) 
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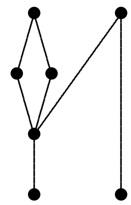
709) 
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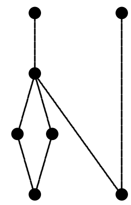
710) 
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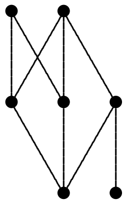
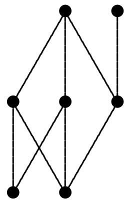
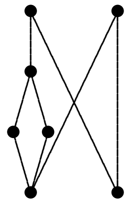
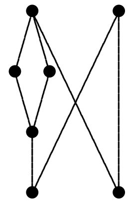
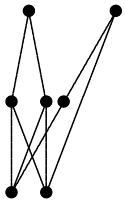
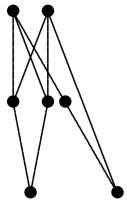
711)  2.520

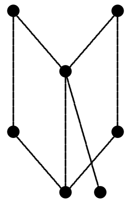
712)  2.520

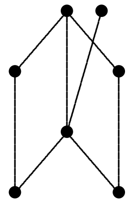
713)  2.520

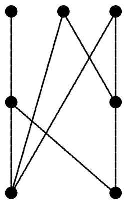
714)  2.520

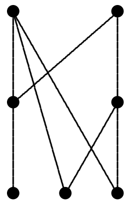
715)  2.520

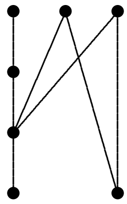
716)  2.520

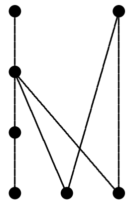
717)  2.520

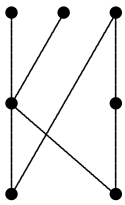
718)  2.520

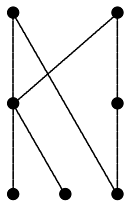
719)  2.520

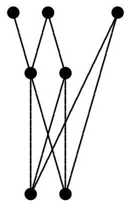
720)  2.520

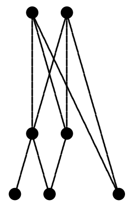
721)  2.520

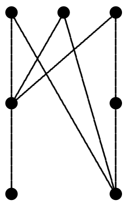
722)  2.520

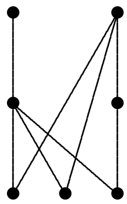
723)  2.520

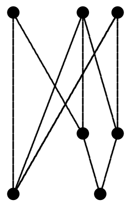
724)  2.520

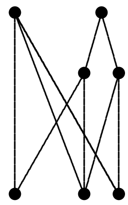
725)  2.520

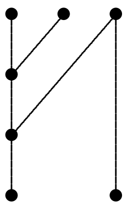
726)  2.520

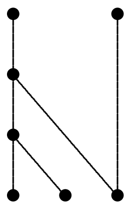
727)  2.520

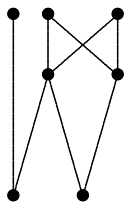
728)  2.520

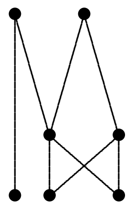
729)  2.520

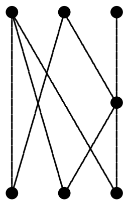
730)  2.520

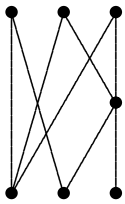
731)  2.520

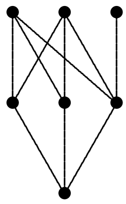
732)  2.520

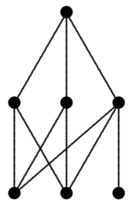
733)  2.520

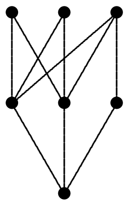
734)  2.520

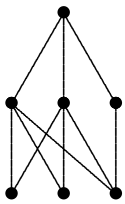
735)  2.520

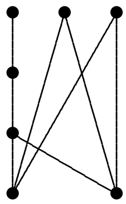
736)  2.520

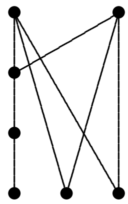
737)  1.260

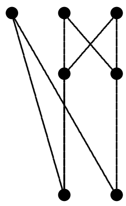
738)  1.260

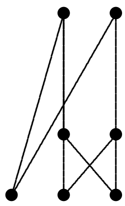
739)  1.260

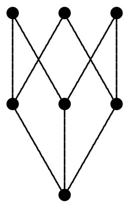
740)  1.260

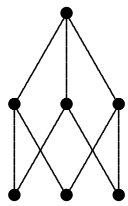
741)  1.260

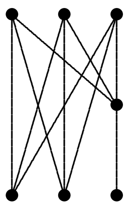
742)  1.260

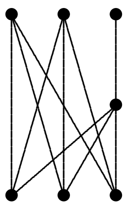
743)  1.260

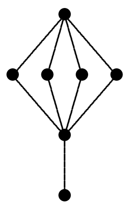
744)  1.260

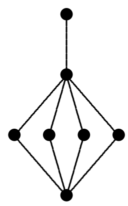
745)  840

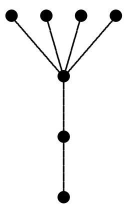
746)  840

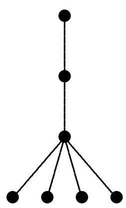
747)  420

748)  420

749)  210

750)  210

751)  210

752)  210

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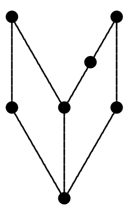
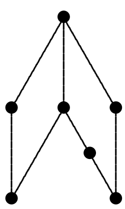
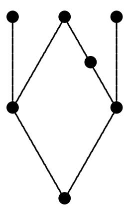
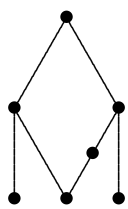
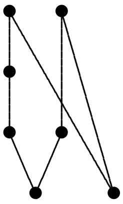
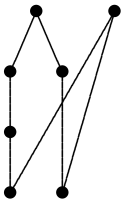
753)  5.040

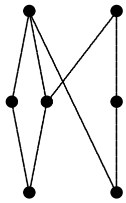
754)  5.040

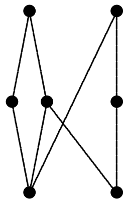
755)  5.040

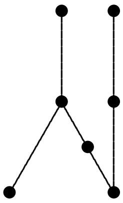
756)  5.040

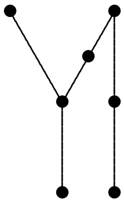
757)  5.040

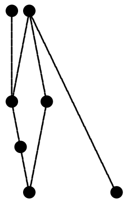
758)  5.040

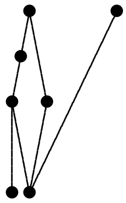
759)  5.040

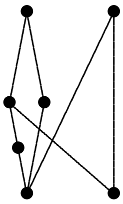
760)  5.040

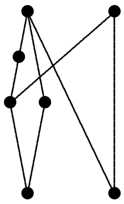
761)  5.040

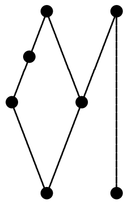
762)  5.040

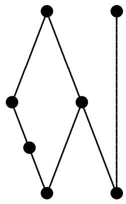
763)  5.040

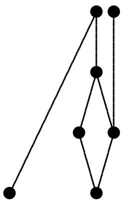
764)  5.040

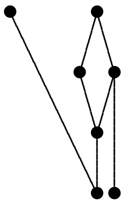
765)  5.040

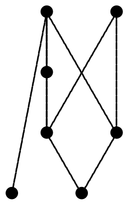
766)  5.040

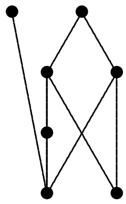
767)  5.040

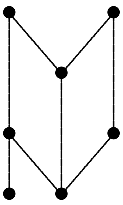
768)  5.040

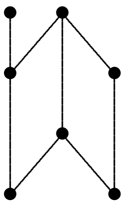
769)  5.040

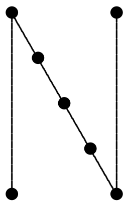
770)  5.040

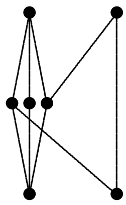
771)  5.040

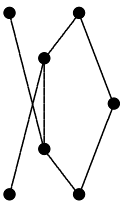
772)  5.040

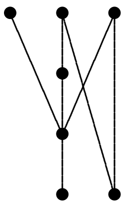
773)  5.040

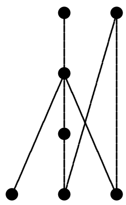
774)  5.040

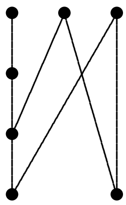
775)  5.040

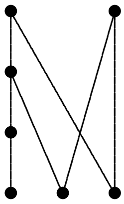
776)  5.040

777)  5.040

778)  5.040

779)  5.040

780)  5.040

781) 
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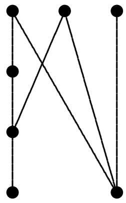
782) 
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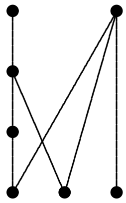
783) 
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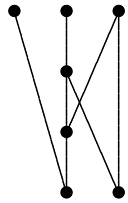
784) 
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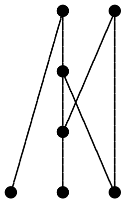
785) 
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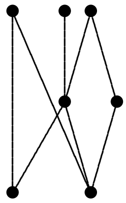
786) 
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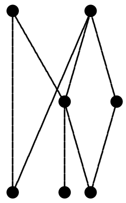
787) 
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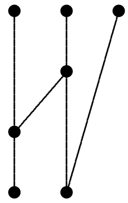
788) 
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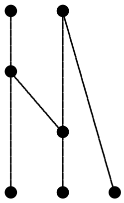
789) 
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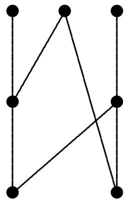
790) 
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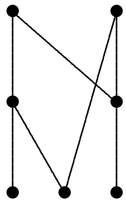
791) 
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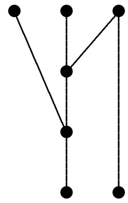
792) 
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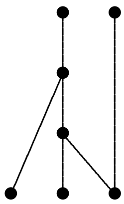
793) 
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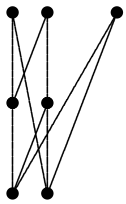
794) 
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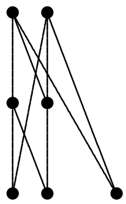
795) 
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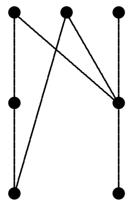
796) 
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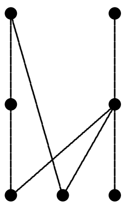
797) 
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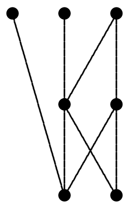
798) 
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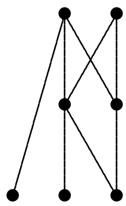
799) 
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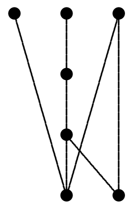
800) 
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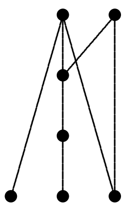
801) 
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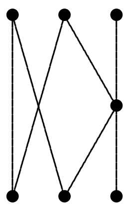
802) 
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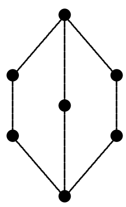
803) 
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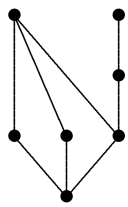
804) 
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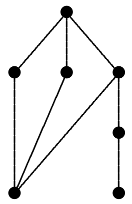
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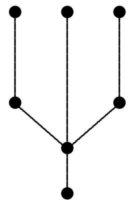
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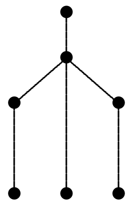
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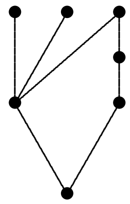
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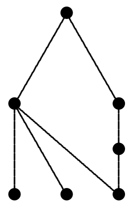
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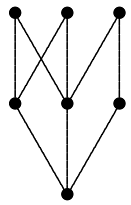
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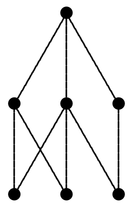
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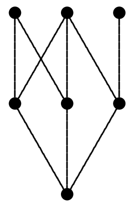
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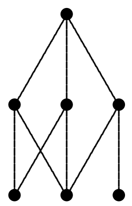
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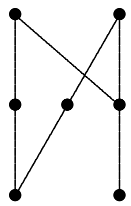
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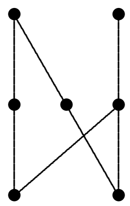
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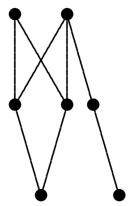
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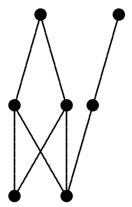
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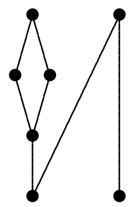
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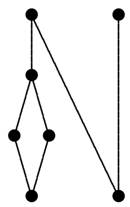
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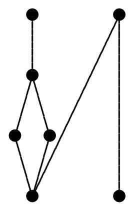
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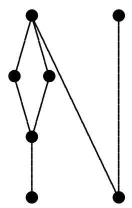
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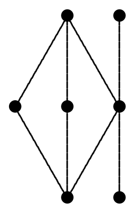
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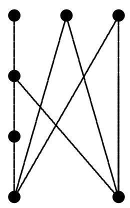
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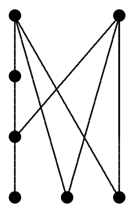
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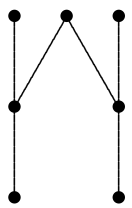
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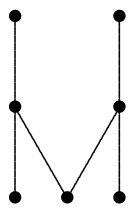
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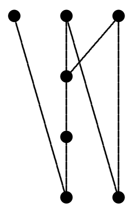
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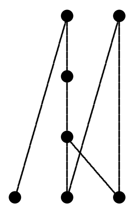
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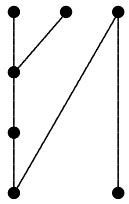
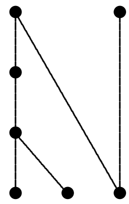
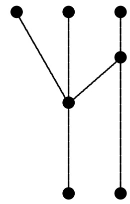
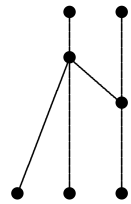
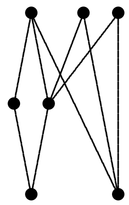
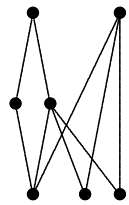
829)  2.520

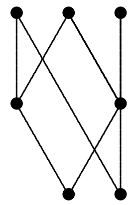
830)  2.520

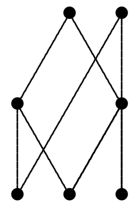
831)  2.520

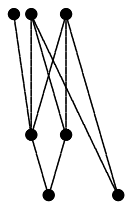
832)  2.520

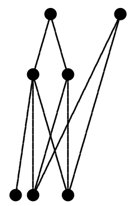
833)  2.520

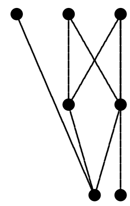
834)  2.520

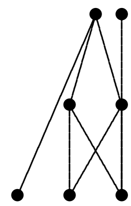
835)  2.520

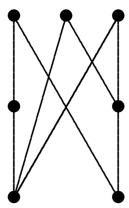
836)  2.520

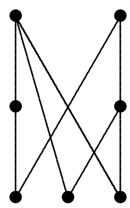
837)  2.520

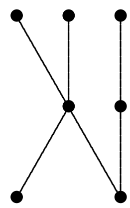
838)  2.520

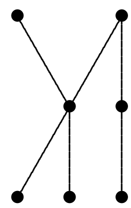
839)  2.520

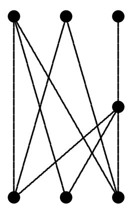
840)  2.520

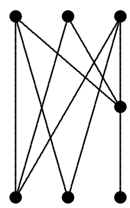
841)  2.520

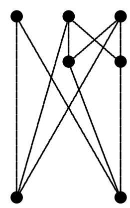
842)  2.520

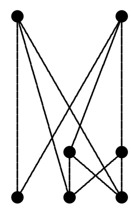
843)  2.520

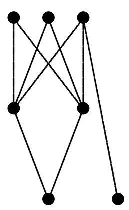
844)  2.520

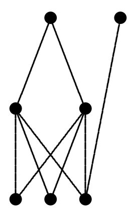
845)  2.520

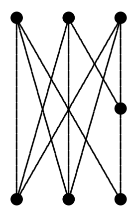
846)  2.520

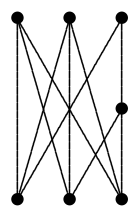
847)  1.260

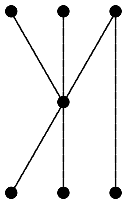
848)  1.260

849)  1.260

850)  1.260

851)  1.260

852)  1.260

853) 
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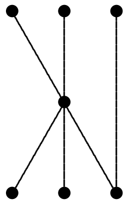
854) 
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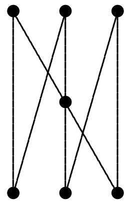
855) 
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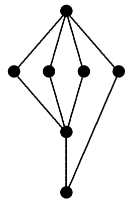
856) 
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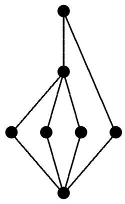
857) 
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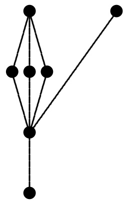
858) 
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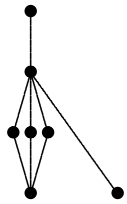
859) 
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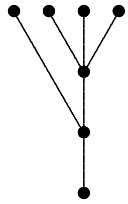
860) 
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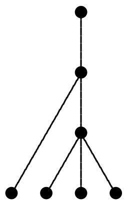
861) 
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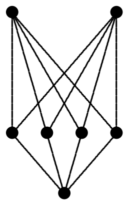
862) 
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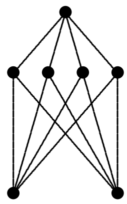
863) 
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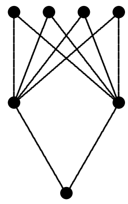
864) 
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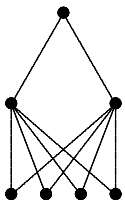
865) 
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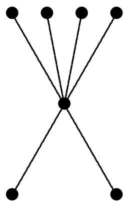
866) 
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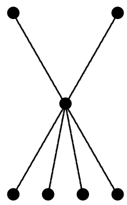
867) 
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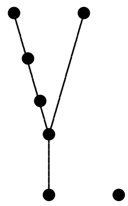
868) 
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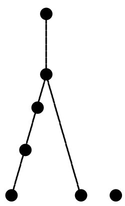
869) 
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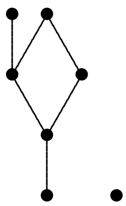
870) 
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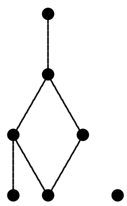
871) 
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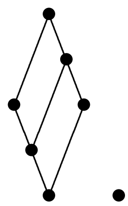
872) 
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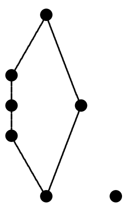
873) 
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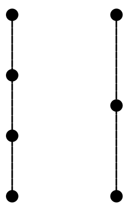
874) 
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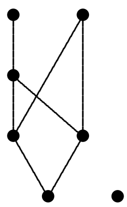
875) 
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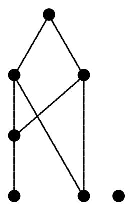
876) 
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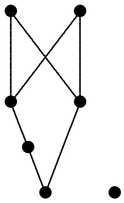
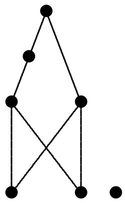
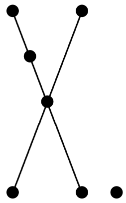
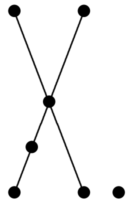
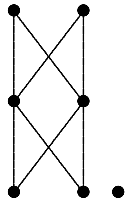
877)  2.520

878)  2.520

879)  2.520

880)  2.520

881)  630

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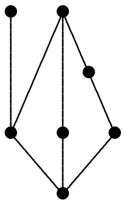
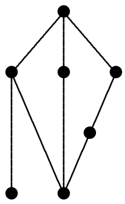
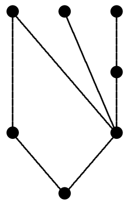
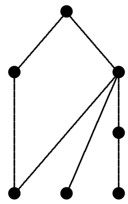
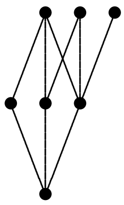
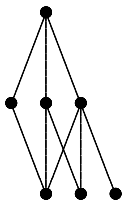
882)  5.040

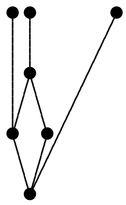
883)  5.040

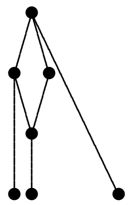
884)  5.040

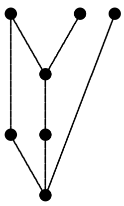
885)  5.040

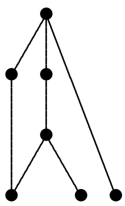
886)  5.040

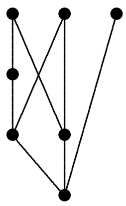
887)  5.040

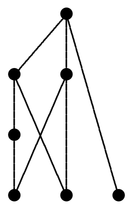
888)  5.040

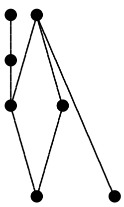
889)  5.040

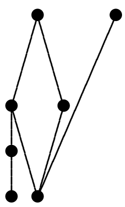
890)  5.040

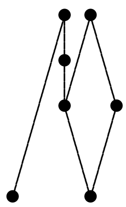
891)  5.040

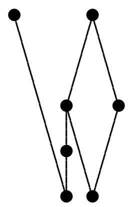
892)  5.040

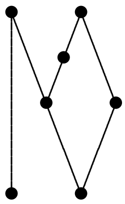
893)  5.040

894)  5.040

895)  5.040

896)  5.040

897)  5.040

898) 
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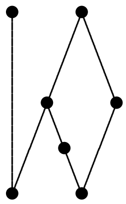
899) 
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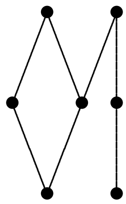
900) 
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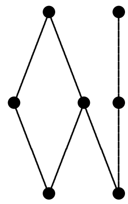
901) 
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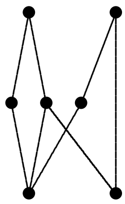
902) 
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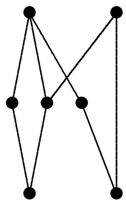
903) 
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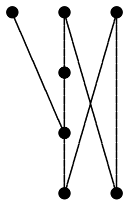
904) 
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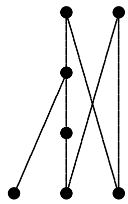
905) 
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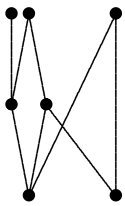
906) 
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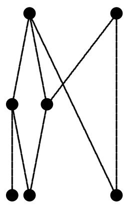
907) 
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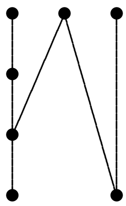
908) 
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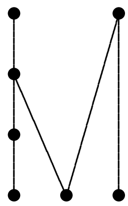
909) 
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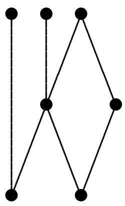
910) 
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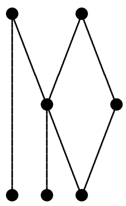
911) 
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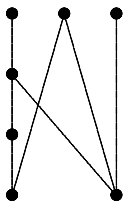
912) 
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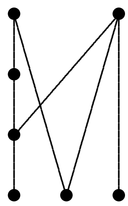
913) 
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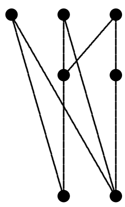
914) 
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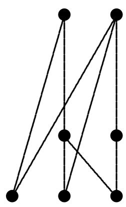
915) 
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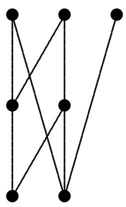
916) 
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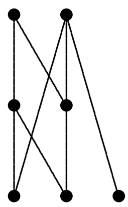
917) 
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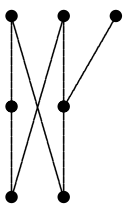
918) 
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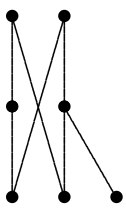
919) 
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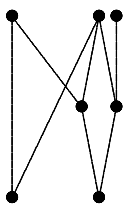
920) 
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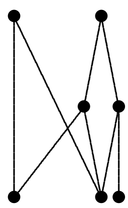
921) 
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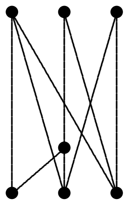
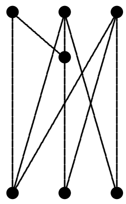
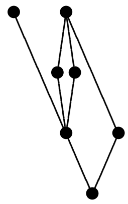
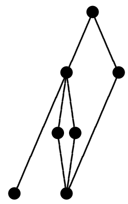
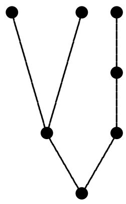
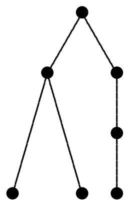
922)  5.040

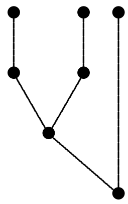
923)  5.040

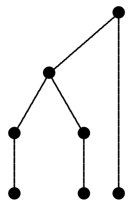
924)  2.520

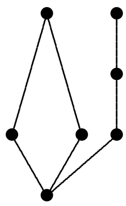
925)  2.520

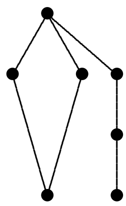
926)  2.520

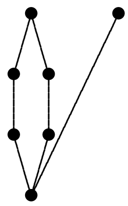
927)  2.520

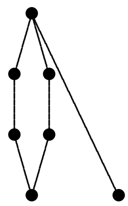
928)  2.520

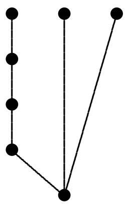
929)  2.520

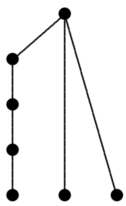
930)  2.520

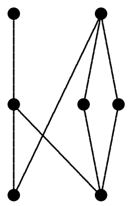
931)  2.520

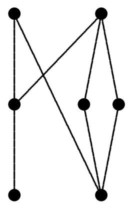
932)  2.520

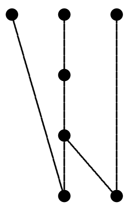
933)  2.520

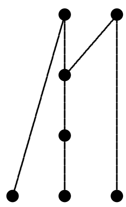
934)  2.520

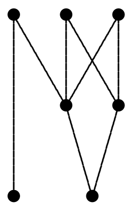
935)  2.520

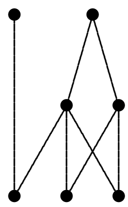
936)  2.520

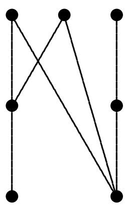
937)  2.520

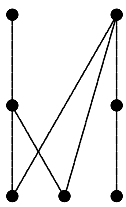
938)  2.520

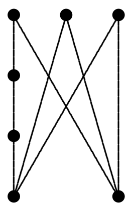
939)  2.520

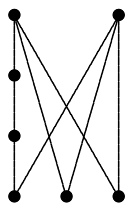
940)  2.520

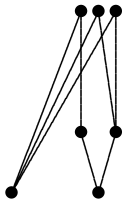
941)  2.520

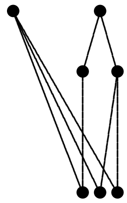
942)  2.520

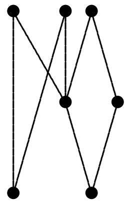
943)  2.520

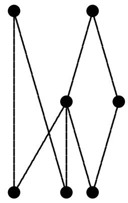
944)  2.520

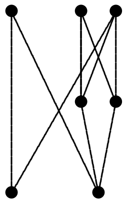
945)  2.520

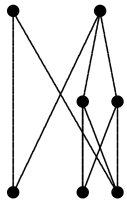
946)  2.520

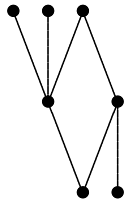
947)  2.520

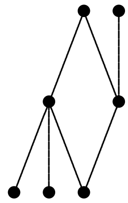
948)  2.520

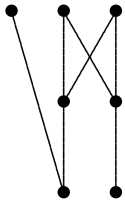
949)  2.520

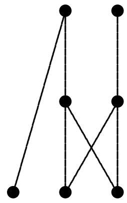
950)  2.520

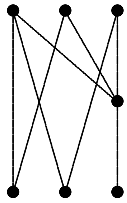
951)  2.520

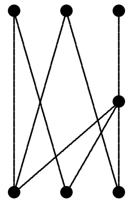
952)  2.520

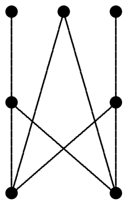
953)  2.520

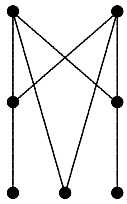
954)  2.520

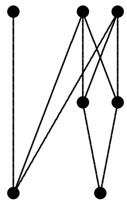
955)  2.520

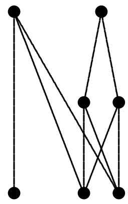
956)  2.520

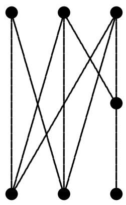
957)  2.520

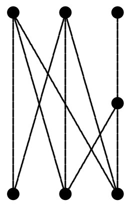
958)  1.260

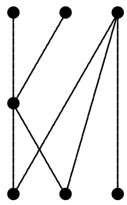
959)  1.260

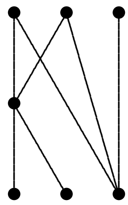
960)  1.260

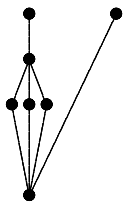
961)  1.260

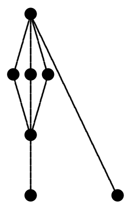
962)  1.260

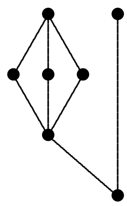
963)  1.260

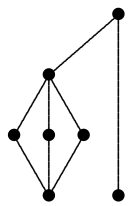
964)  1.260

965)  1.260

966)  840

967)  840

968)  840

969)  840

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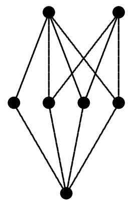
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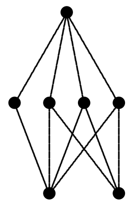
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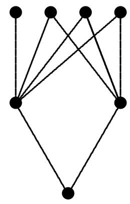
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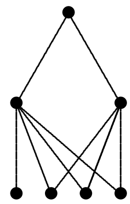
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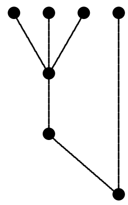
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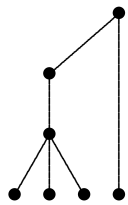
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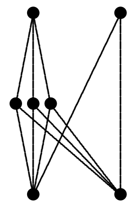
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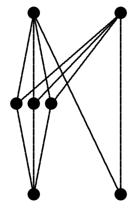
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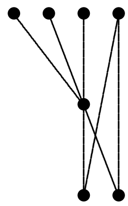
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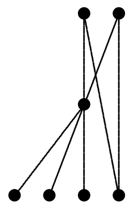
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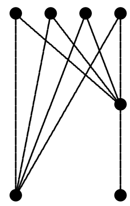
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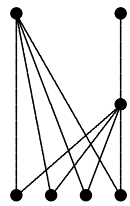
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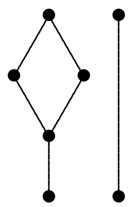
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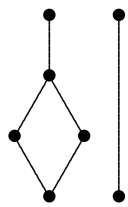
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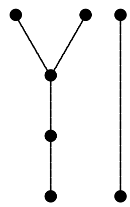
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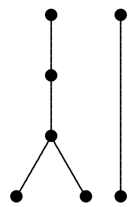
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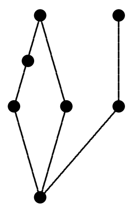
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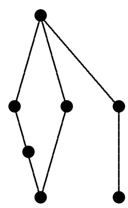
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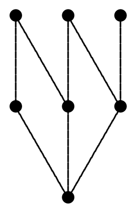
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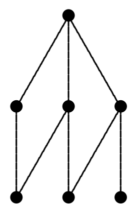
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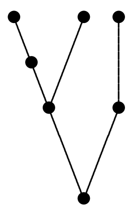
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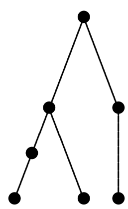
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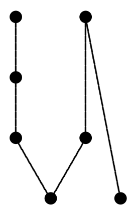
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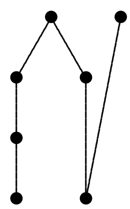
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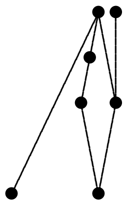
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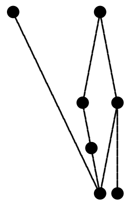
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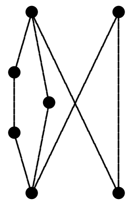
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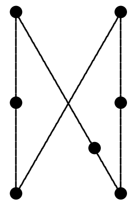
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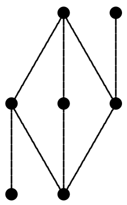
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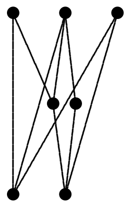
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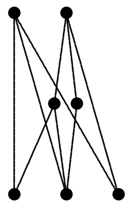
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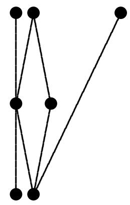
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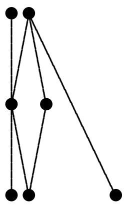
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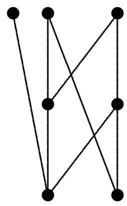
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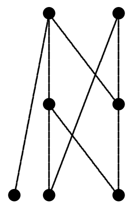
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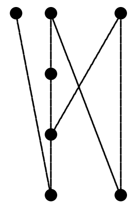
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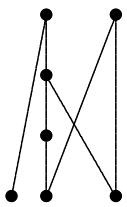
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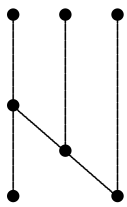
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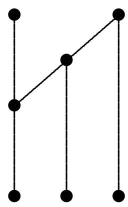
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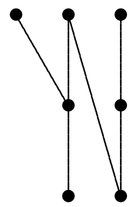
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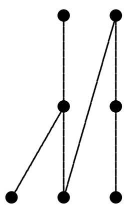
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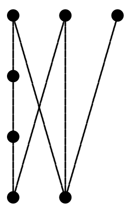
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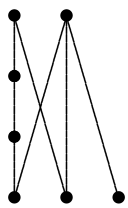
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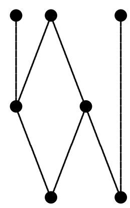
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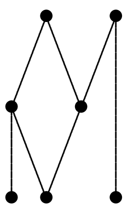
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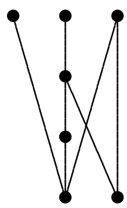
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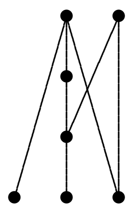
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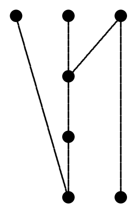
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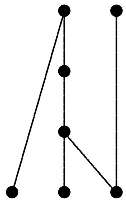
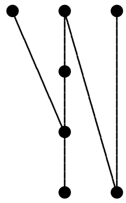
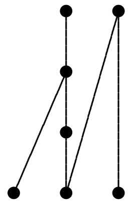
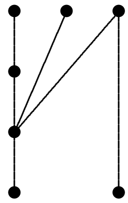
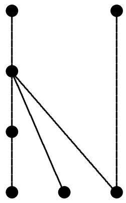
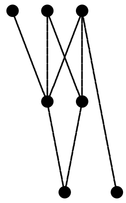
1.018)  5.040

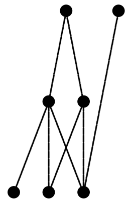
1.019)  5.040

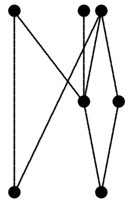
1.020)  5.040

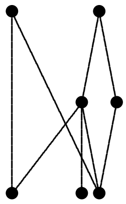
1.021)  5.040

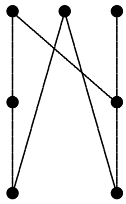
1.022)  5.040

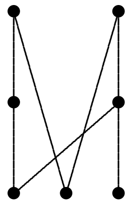
1.023)  5.040

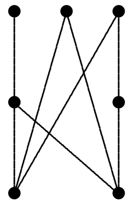
1.024)  5.040

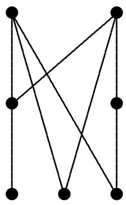
1.025)  5.040

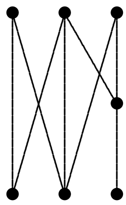
1.026)  5.040

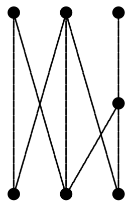
1.027)  5.040

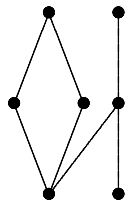
1.028)  5.040

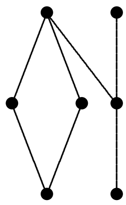
1.029)  5.040

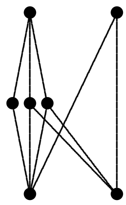
1.030)  5.040

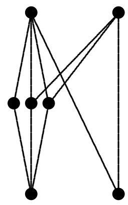
1.031)  5.040

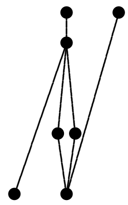
1.032)  5.040

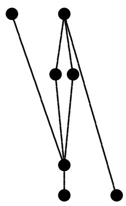
1.033)  2.520

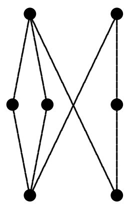
1.034)  2.520

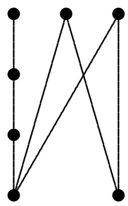
1.035)  2.520

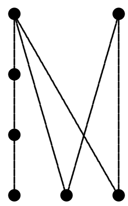
1.036)  2.520

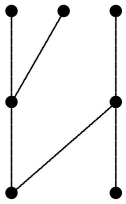
1.037)  2.520

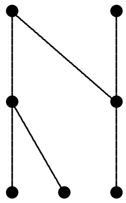
1.038)  2.520

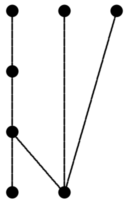
1.039)  2.520

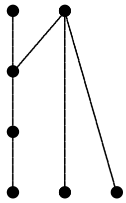
1.040)  2.520

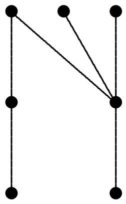
1.041)  2.520

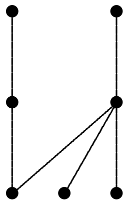
1.042)  2.520

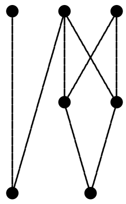
1.043)  2.520

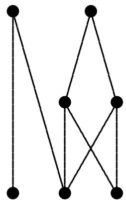
1.044)  2.520

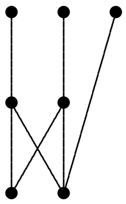
1.045)  2.520

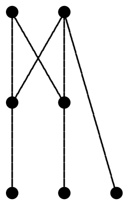
1.046)  2.520

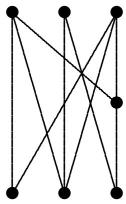
1.047)  2.520

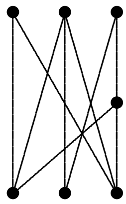
1.048)  2.520

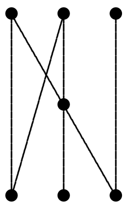
1.049)  2.520

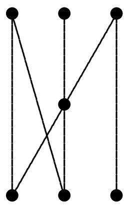
1.050)  2.520

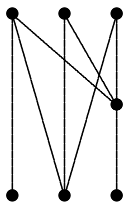
1.051)  2.520

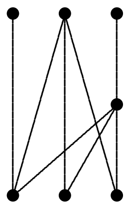
1.052)  2.520

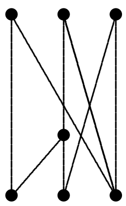
1.053)  2.520

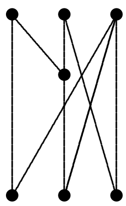
1.054)  2.520

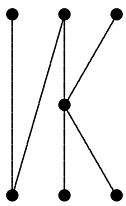
1.055)  2.520

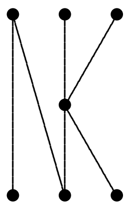
1.056)  2.520

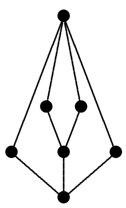
1.057)  2.520

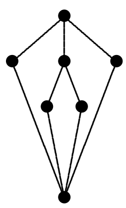
1.058)  2.520

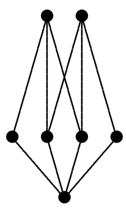
1.059)  2.520

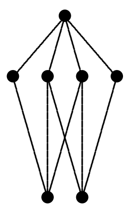
1.060)  2.520

1.061)  2.520

1.062)  1.260

1.063)  1.260

1.064)  1.260

1.065)  1.260

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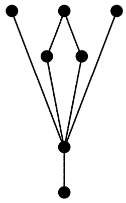
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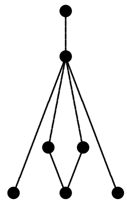
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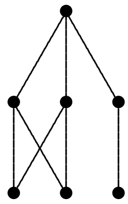
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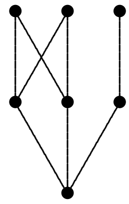
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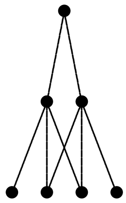
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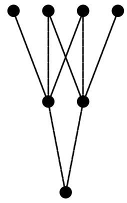
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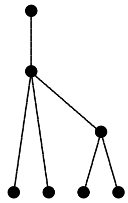
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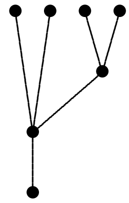
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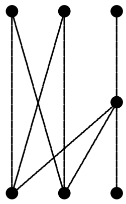
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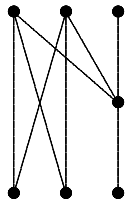
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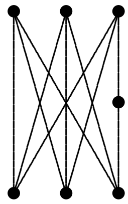
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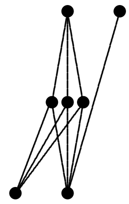
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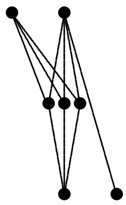
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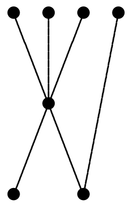
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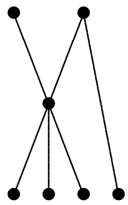
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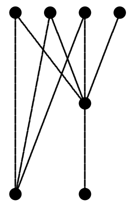
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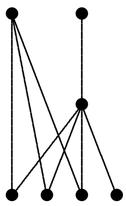
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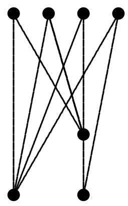
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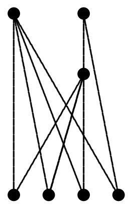
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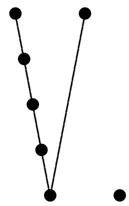
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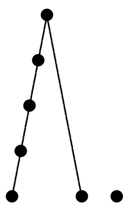
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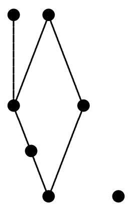
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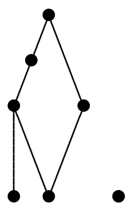
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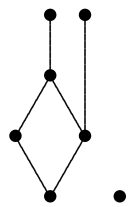
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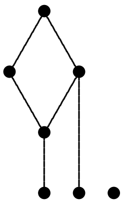
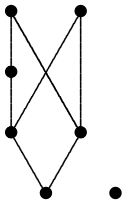
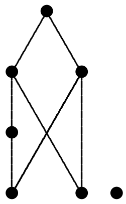
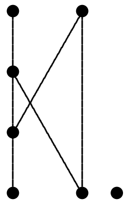
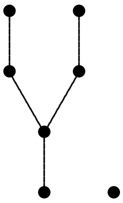
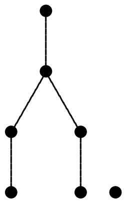
1.090)  5.040

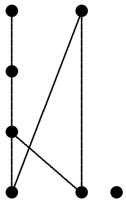
1.091)  5.040

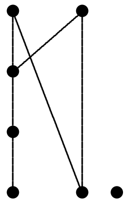
1.092)  5.040

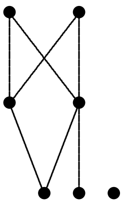
1.093)  5.040

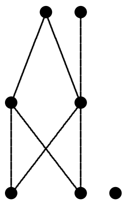
1.094)  2.520

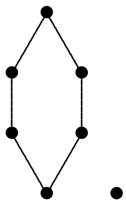
1.095)  2.520

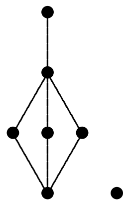
1.096)  2.520

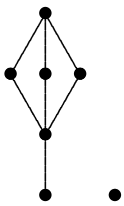
1.097)  2.520

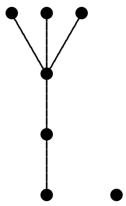
1.098)  2.520

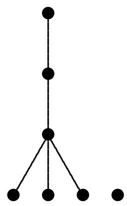
1.099)  2.520

1.100)  2.520

1.101)  840

1.102)  840

1.103)  840

1.104)  840

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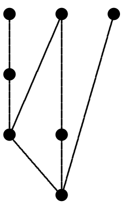
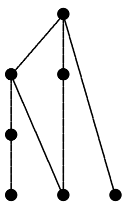
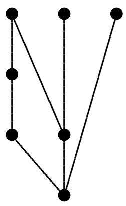
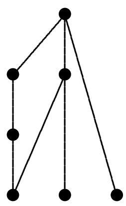
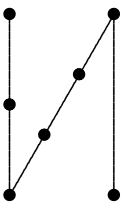
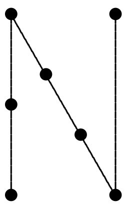
1.105)  5.040

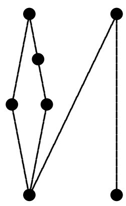
1.106)  5.040

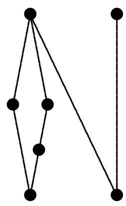
1.107)  5.040

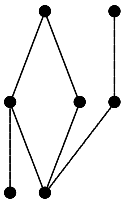
1.108)  5.040

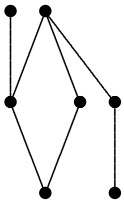
1.109)  5.040

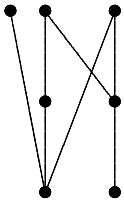
1.110)  5.040

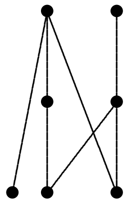
1.111)  5.040

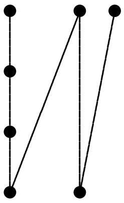
1.112)  5.040

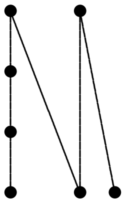
1.113)  5.040

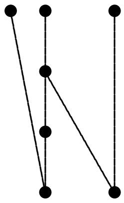
1.114)  5.040

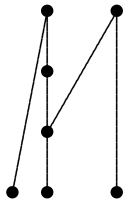
1.115)  5.040

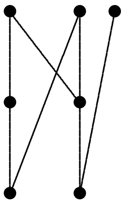
1.116)  5.040

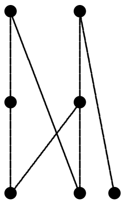
1.117)  5.040

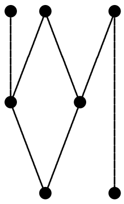
1.118)  5.040

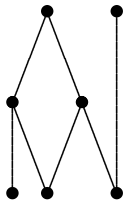
1.119)  5.040

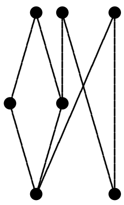
1.120)  5.040

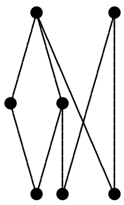
1.121)  5.040

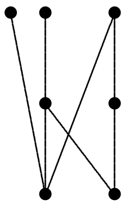
1.122)  5.040

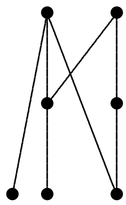
1.123)  5.040

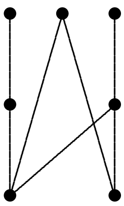
1.124)  5.040

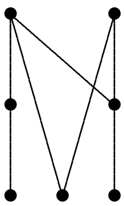
1.125)  5.040

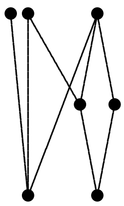
1.126)  5.040

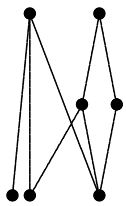
1.127)  5.040

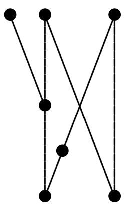
1.128)  5.040

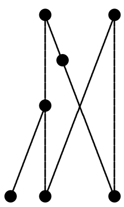
1.129)  5.040

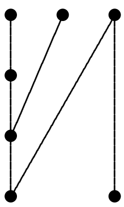
1.130)  5.040

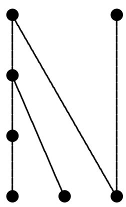
1.131)  5.040

1.132)  5.040

1.133)  5.040

1.134)  5.040

1.135)  5.040

1.136)  5.040

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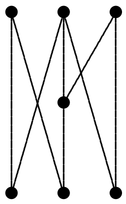
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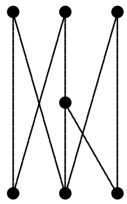
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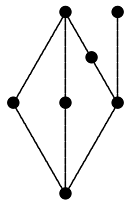
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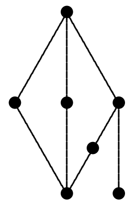
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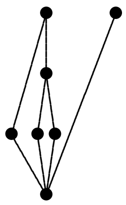
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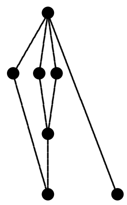
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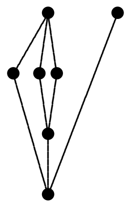
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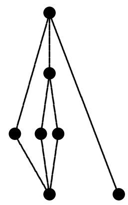
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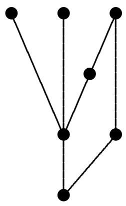
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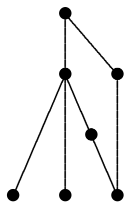
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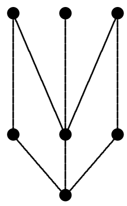
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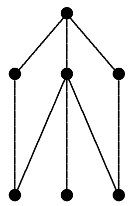
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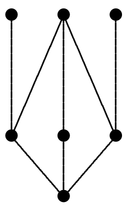
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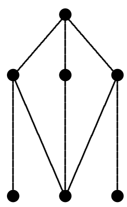
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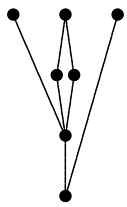
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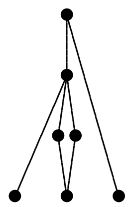
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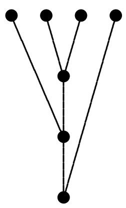
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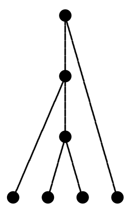
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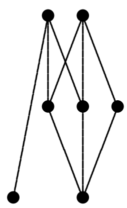
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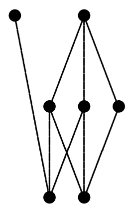
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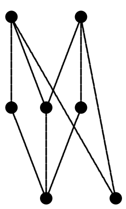
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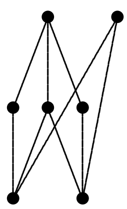
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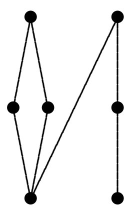
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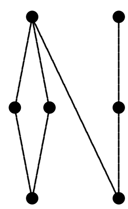
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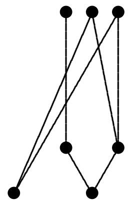
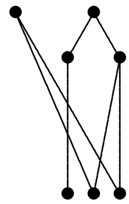
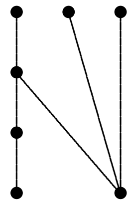
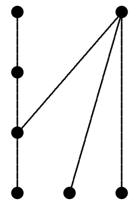
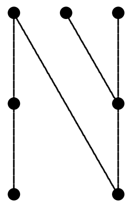
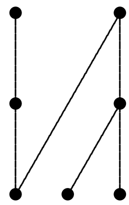
1.161)  2.520

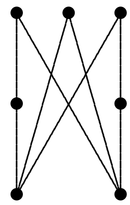
1.162)  2.520

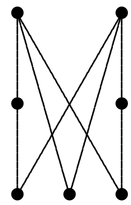
1.163)  2.520

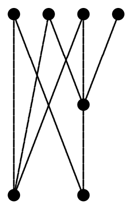
1.164)  2.520

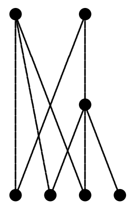
1.165)  2.520

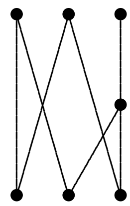
1.166)  2.520

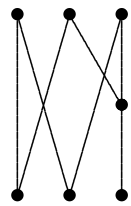
1.167)  2.520

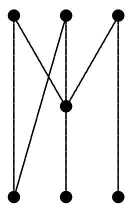
1.168)  2.520

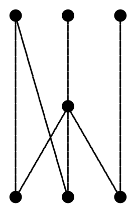
1.169)  2.520

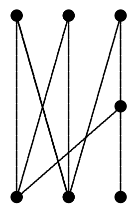
1.170)  2.520

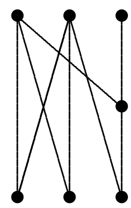
1.171)  2.520

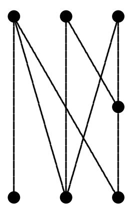
1.172)  2.520

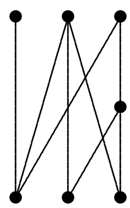
1.173)  2.520

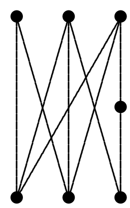
1.174)  2.520

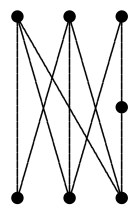
1.175)  2.520

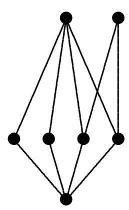
1.176)  2.520

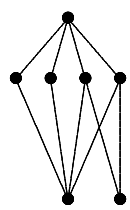
1.177)  2.520

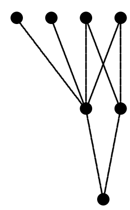
1.178)  2.520

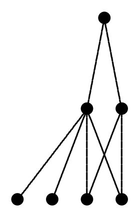
1.179)  2.520

1.180)  2.520

1.181)  1.260

1.182)  1.260

1.183)  1.260

1.184)  1.260

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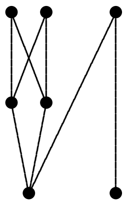

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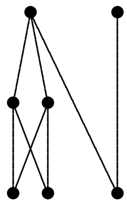

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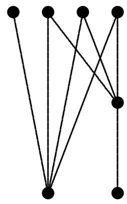

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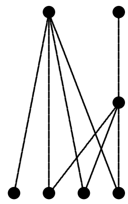

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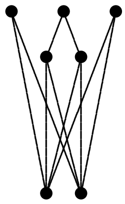

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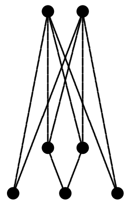

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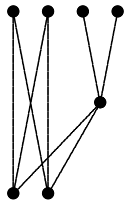

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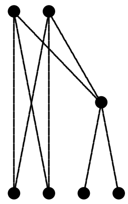

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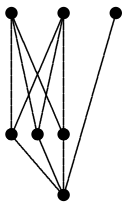

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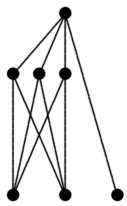

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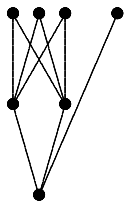

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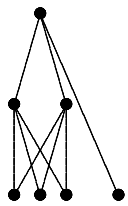

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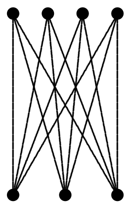

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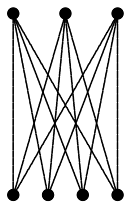

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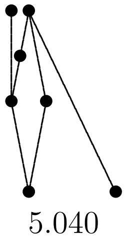

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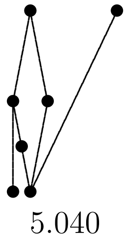

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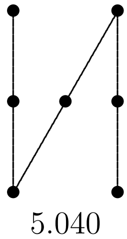

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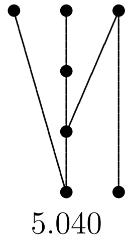

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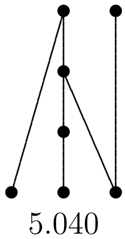

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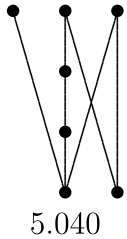

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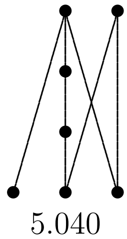

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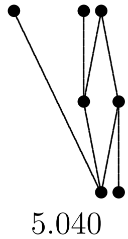

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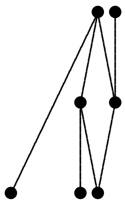
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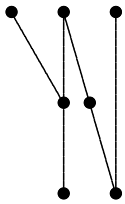
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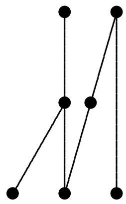
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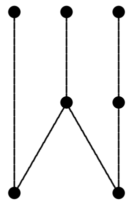
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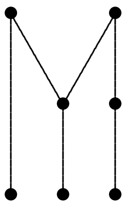
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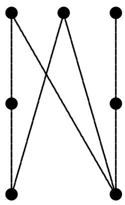
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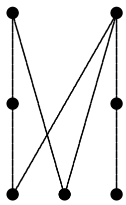
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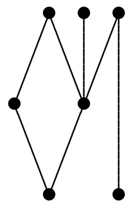
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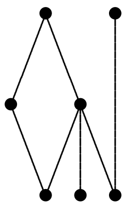
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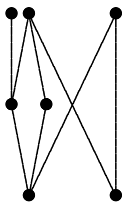
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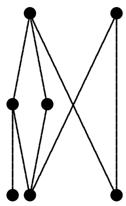
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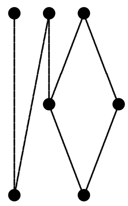
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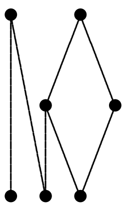
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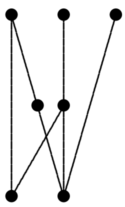
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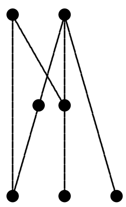
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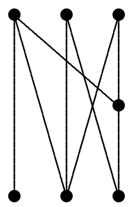
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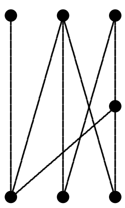
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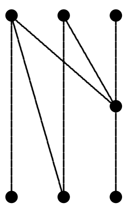
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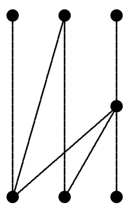
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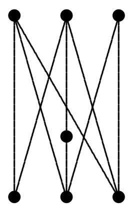
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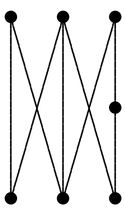
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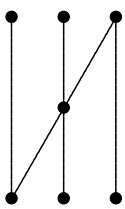
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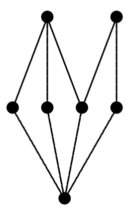
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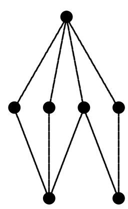
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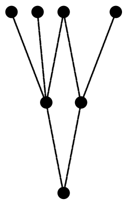
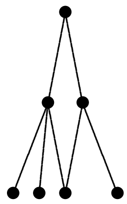
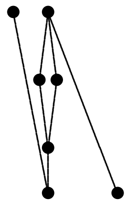
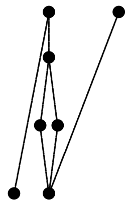
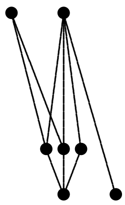
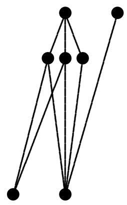
1.231)  2.520

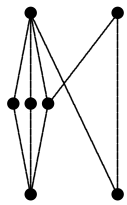
1.232)  2.520

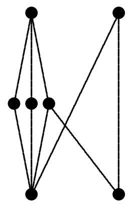
1.233)  2.520

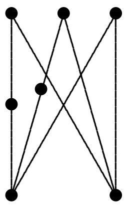
1.234)  2.520

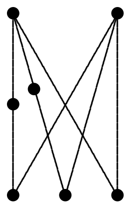
1.235)  2.520

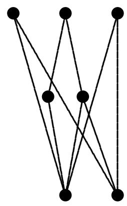
1.236)  2.520

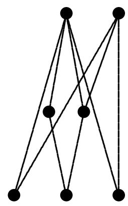
1.237)  2.520

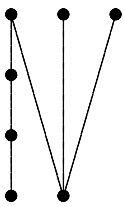
1.238)  2.520

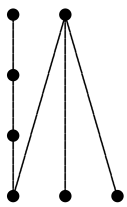
1.239)  2.520

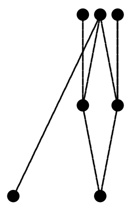
1.240)  2.520

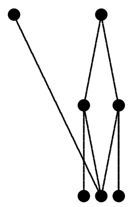
1.241)  2.520

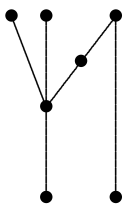
1.242)  2.520

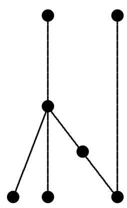
1.243)  2.520

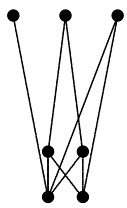
1.244)  2.520

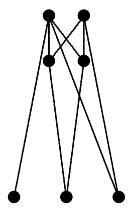
1.245)  2.520

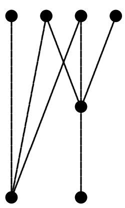
1.246)  2.520

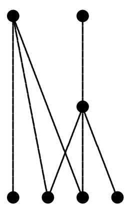
1.247)  2.520

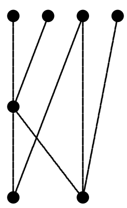
1.248)  2.520

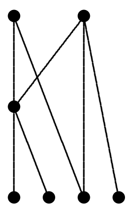
1.249)  2.520

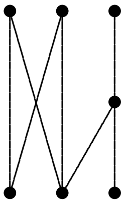
1.250)  2.520

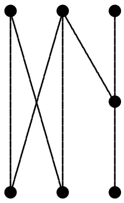
1.251)  2.520

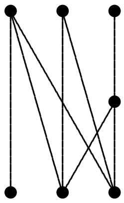
1.252)  2.520

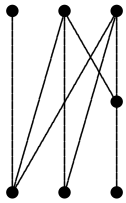
1.253)  2.520

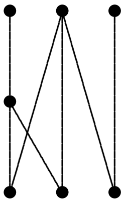
1.254)  2.520

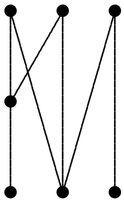
1.255)  2.520

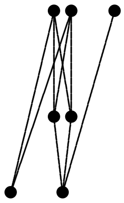
1.256)  2.520

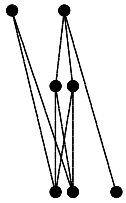
1.257)  2.520

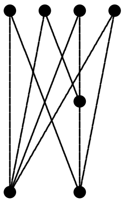
1.258)  2.520

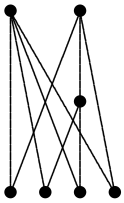
1.259)  2.520

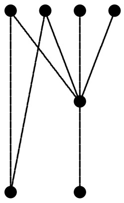
1.260)  2.520

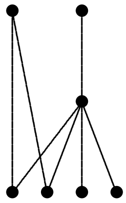
1.261)  1.260

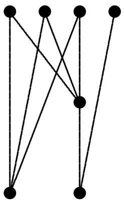
1.262)  1.260

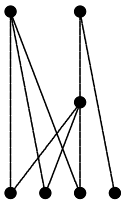
1.263)  1.260

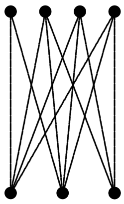
1.264)  1.260

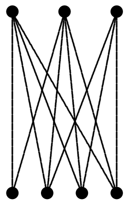
1.265)  1.260

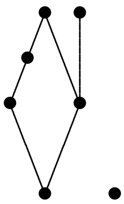
1.266)  1.260

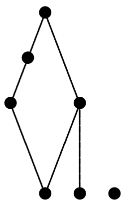
1.267)  840

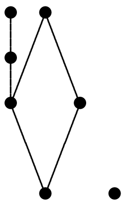
1.268)  840

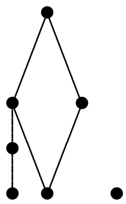
1.269)  420

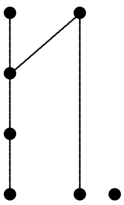
1.270)  420

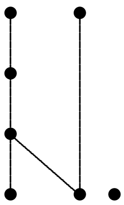
1.271)  5.040

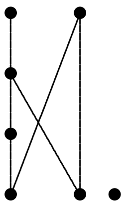
1.272)  5.040

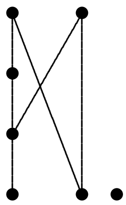
1.273)  5.040

1.274)  5.040

1.275)  5.040

1.276)  5.040

1.277)  5.040

1.278)  5.040

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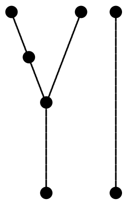
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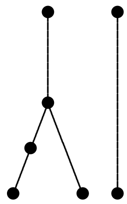
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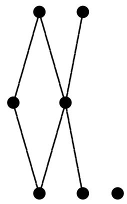
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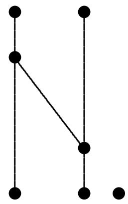
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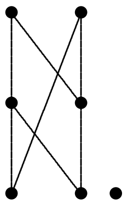
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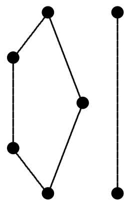
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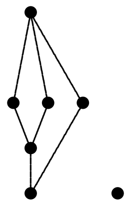
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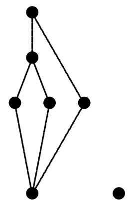
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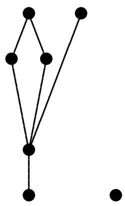
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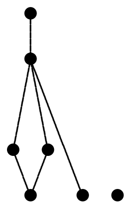
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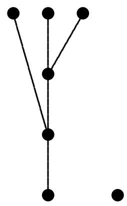
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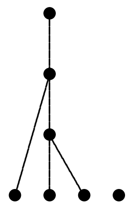
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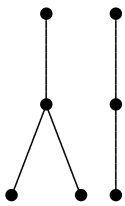
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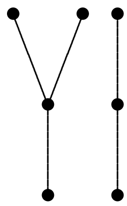
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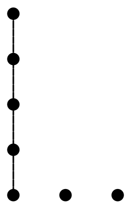
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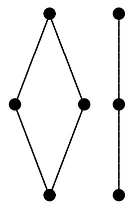
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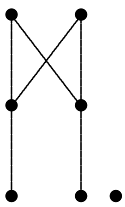
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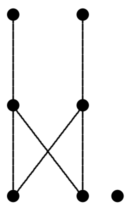
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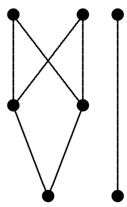
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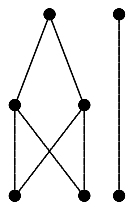
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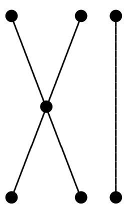
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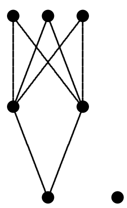
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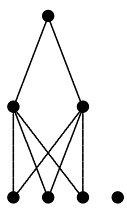
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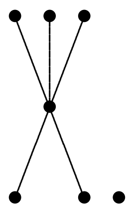
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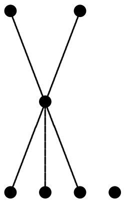
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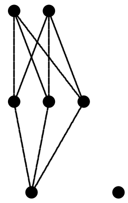
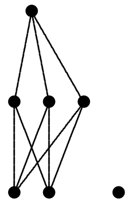

420

1.305)

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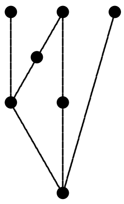
$|RB(\mathbf{7})| = 25$

1.306)

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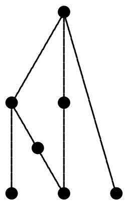
1.307)

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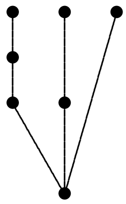
1.308)

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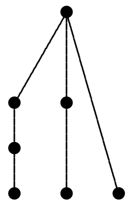
1.309)

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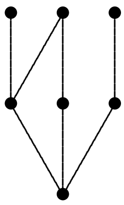
1.310)

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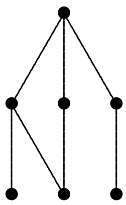
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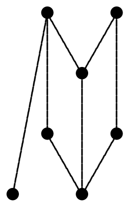
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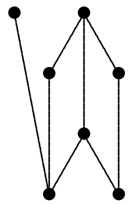
1.313)

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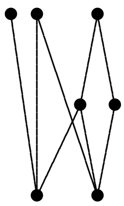
1.314)

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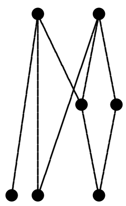
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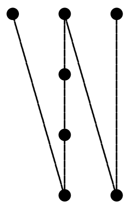
1.316)

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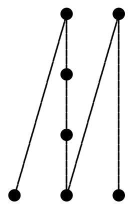
1.317)

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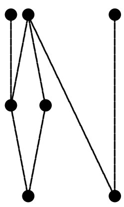
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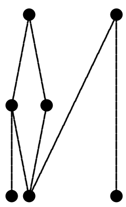
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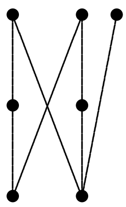
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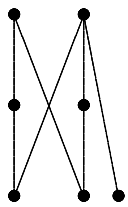
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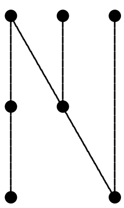
1.322)

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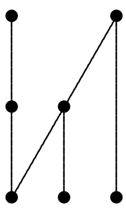
1.323)

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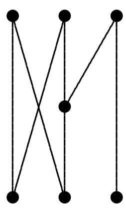
1.324)

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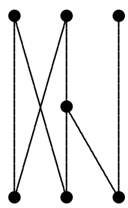
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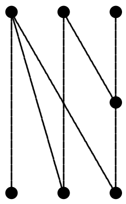
1.326)

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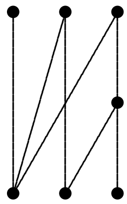
1.327)

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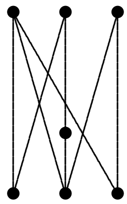
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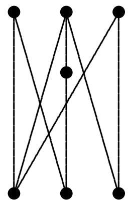
1.329)

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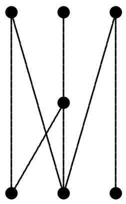
1.330)

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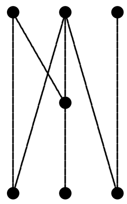
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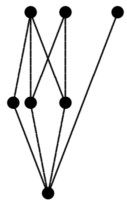
1.332)

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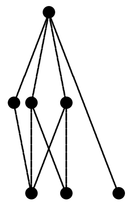
1.333)

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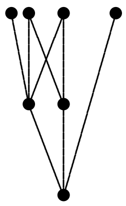
1.334)

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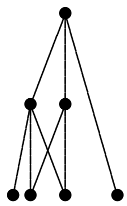
1.335)

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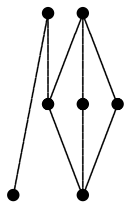
1.336)

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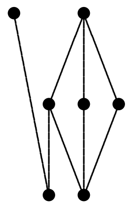
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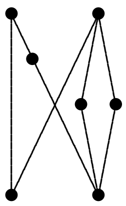
1.338)

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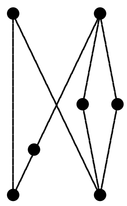
1.339)

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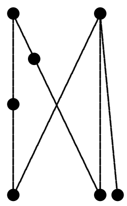
1.340)

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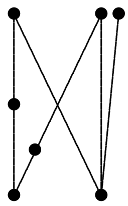
1.341)

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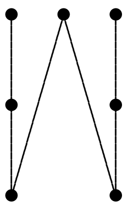
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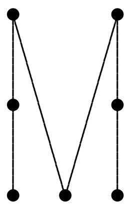
1.343)

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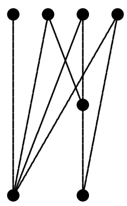
1.344)

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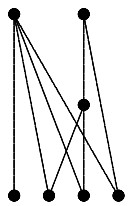
1.345)

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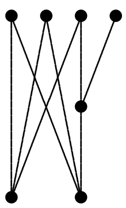
1.346)

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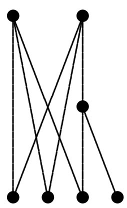
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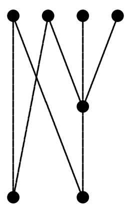
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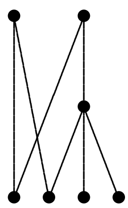
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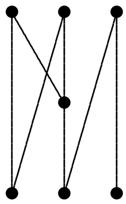
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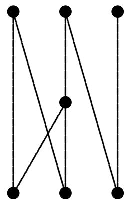
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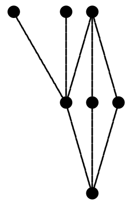
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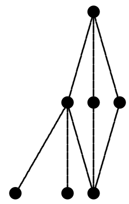
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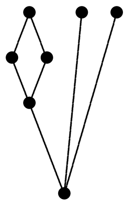
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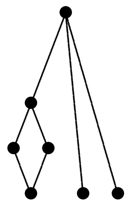
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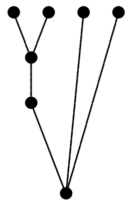
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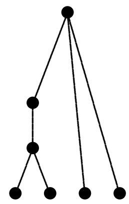
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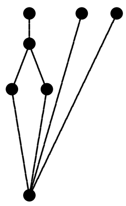
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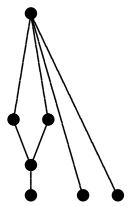
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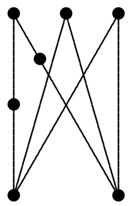
1.360)

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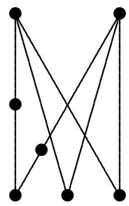
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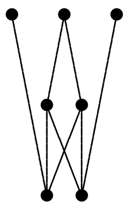
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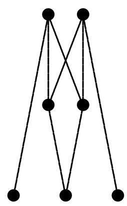
1.363)

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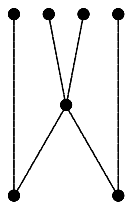
1.364)

1.260

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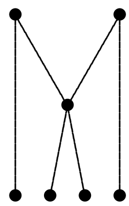
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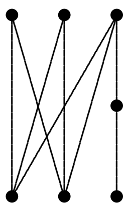
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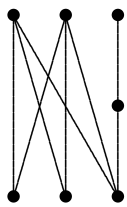
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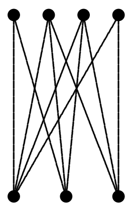
1.368)

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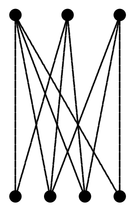
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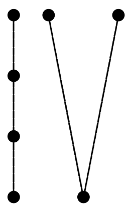
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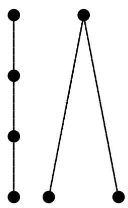
1.371)

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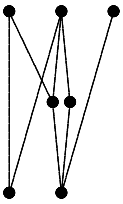
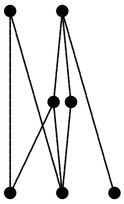
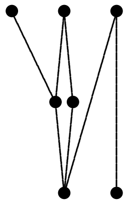
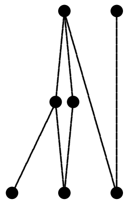
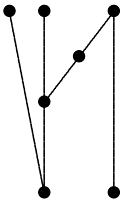
$|RB(\mathbf{7})| = 26$

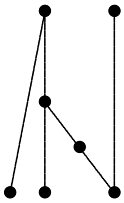
1.372)  5.040

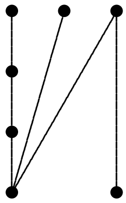
1.373)  5.040

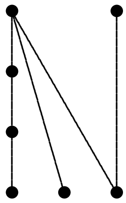
1.374)  5.040

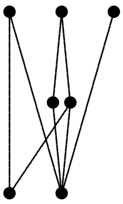
1.375)  5.040

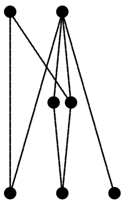
1.376)  5.040

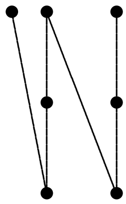
1.377)  5.040

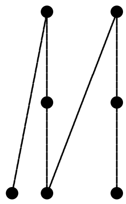
1.378)  5.040

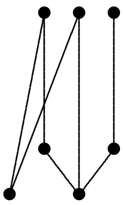
1.379)  5.040

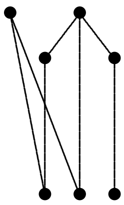
1.380)  5.040

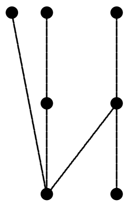
1.381)  5.040

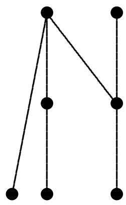
1.382)  5.040

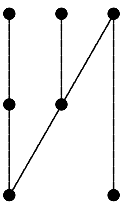
1.383)  5.040

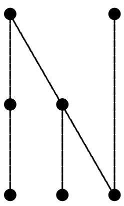
1.384)  5.040

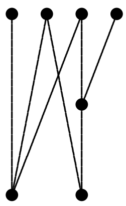
1.385)  5.040

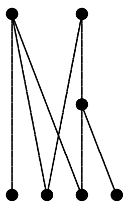
1.386)  5.040

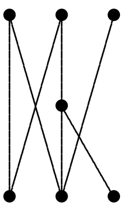
1.387)  5.040

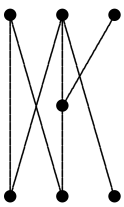
1.388)  5.040

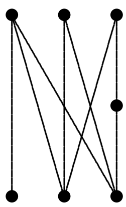
1.389)  5.040

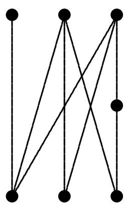
1.390)  5.040

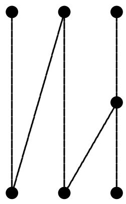
1.391)  5.040

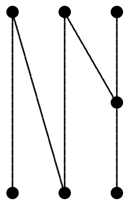
1.392)  5.040

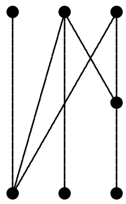
1.393)  5.040

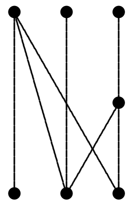
1.394)  5.040

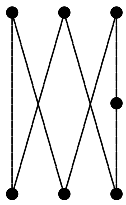
1.395)  5.040

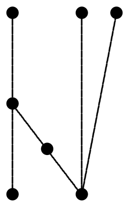
1.396)  5.040

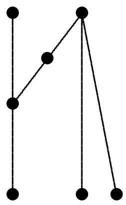
1.397)  5.040

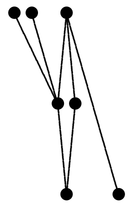
1.398)  5.040

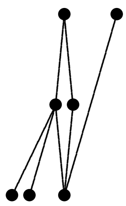
1.399)  5.040

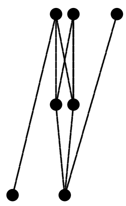
1.400)  5.040

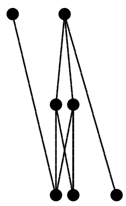
1.401)  2.520

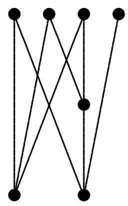
1.402)  2.520

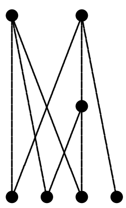
1.403)  2.520

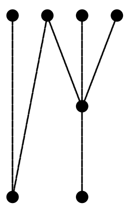
1.404)  2.520

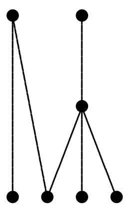
1.405)  2.520

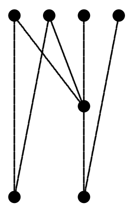
1.406)  2.520

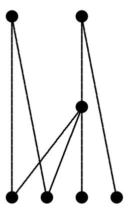
1.407)  2.520

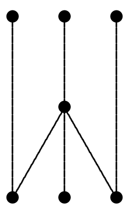
1.408)  2.520

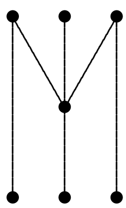
1.409)  2.520

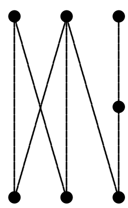
1.410)  2.520

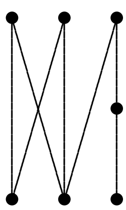
1.411)  2.520

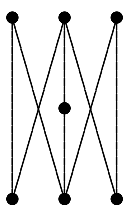
1.412)  2.520

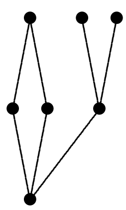
1.413)  2.520

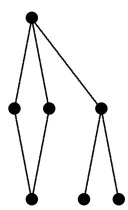
1.414)  2.520

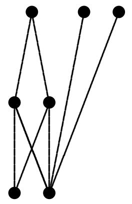
1.415)  2.520

1.416)  2.520

1.417)  2.520

1.418)  1.260

1.419)  1.260

1.420) 
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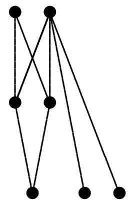
1.421) 
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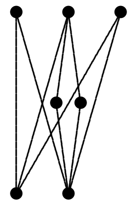
1.422) 
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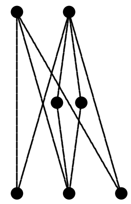
1.423) 
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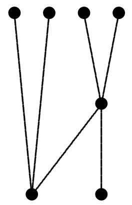
1.424) 
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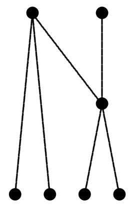
1.425) 
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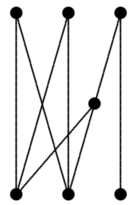
1.426) 
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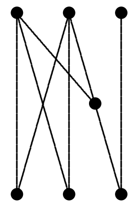
1.427) 
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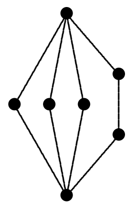
1.428) 
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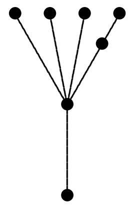
1.429) 
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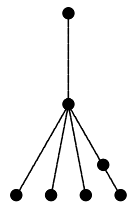
1.430) 
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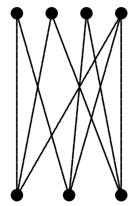
1.431) 
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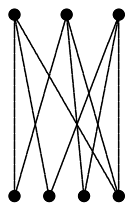
1.432) 
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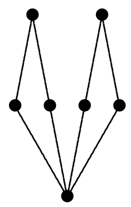
1.433) 
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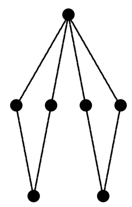
1.434) 
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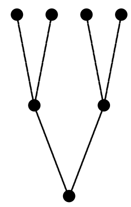
1.435) 
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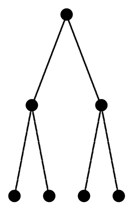
1.436) 
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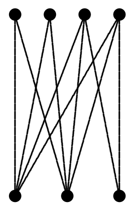
1.437) 
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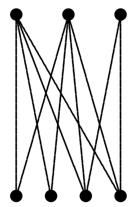
1.438) 
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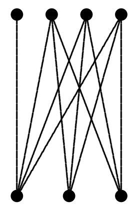
1.439) 
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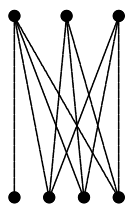
1.440) 
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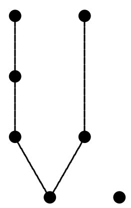
1.441) 
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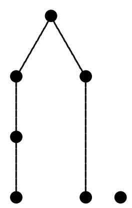
1.442) 
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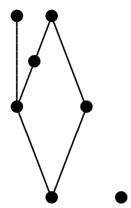
1.443) 
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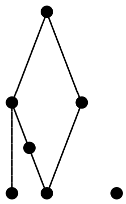
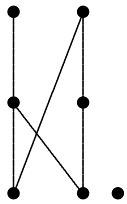
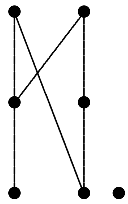
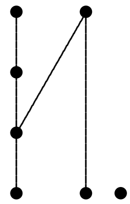
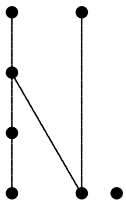
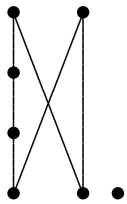
1.444)  5.040

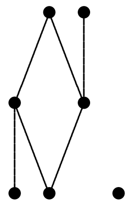
1.445)  5.040

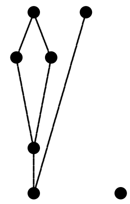
1.446)  5.040

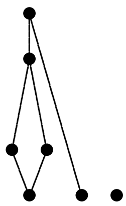
1.447)  5.040

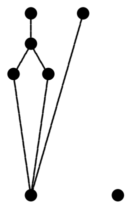
1.448)  5.040

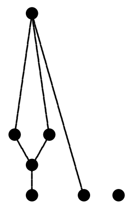
1.449)  5.040

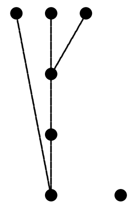
1.450)  5.040

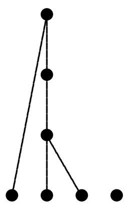
1.451)  2.520

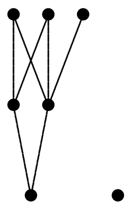
1.452)  2.520

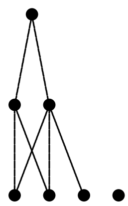
1.453)  2.520

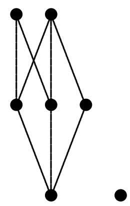
1.454)  2.520

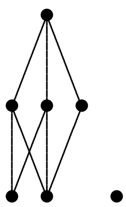
1.455)  2.520

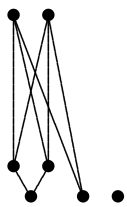
1.456)  2.520

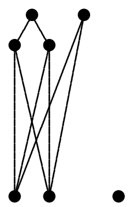
1.457)  2.520

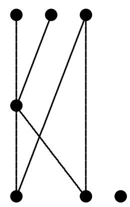
1.458)  2.520

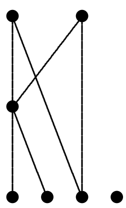
1.459)  2.520

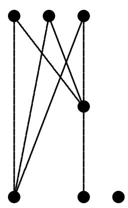
1.460)  2.520

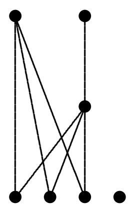
1.461)  1.260

1.462)  1.260

1.463)  1.260

1.464)  1.260

1.465)  840

1.466)  840

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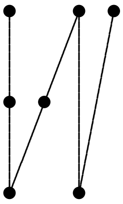
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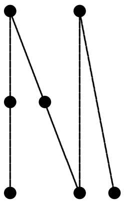
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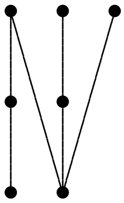
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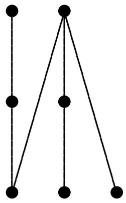
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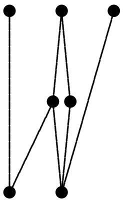
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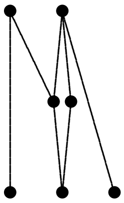
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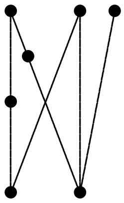
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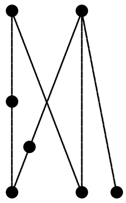
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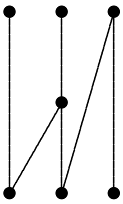
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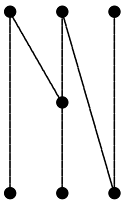
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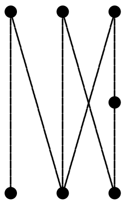
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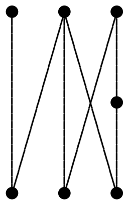
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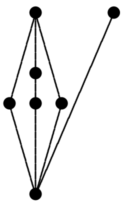
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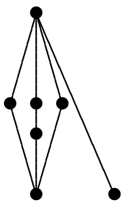
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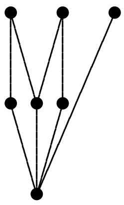
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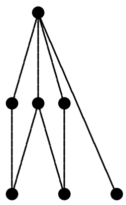
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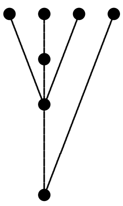
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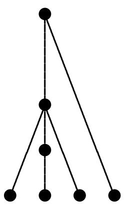
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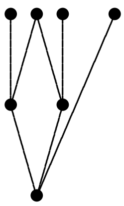
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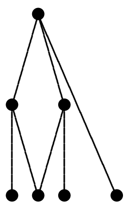
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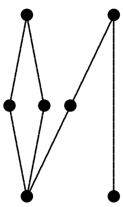
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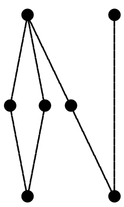
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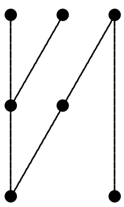
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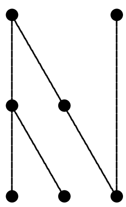
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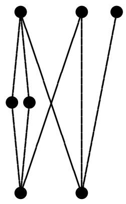
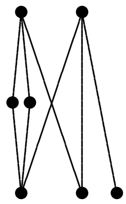
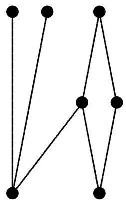
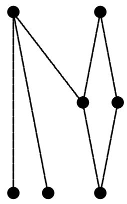
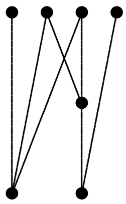
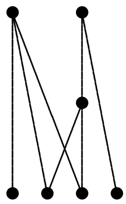
1.491)  2.520

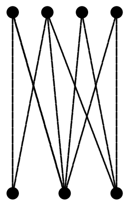
1.492)  2.520

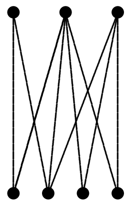
1.493)  2.520

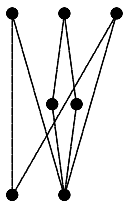
1.494)  2.520

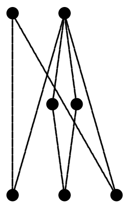
1.495)  2.520

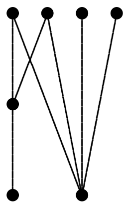
1.496)  2.520

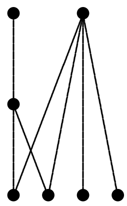
1.497)  2.520

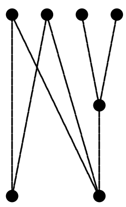
1.498)  2.520

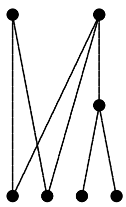
1.499)  1.260

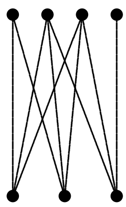
1.500)  1.260

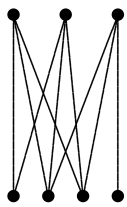
1.501)  1.260

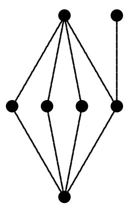
1.502)  1.260

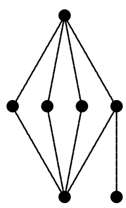
1.503)  1.260

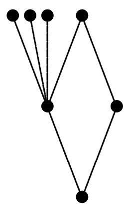
1.504)  1.260

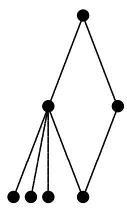
1.505)  1.260

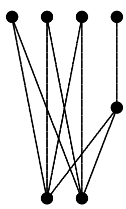
1.506)  1.260

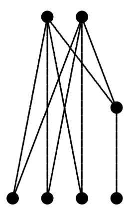
1.507)  840

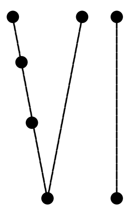
1.508)  840

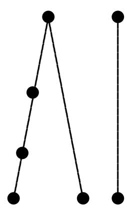
1.509)  840

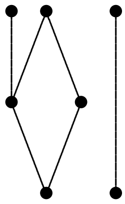
1.510)  840

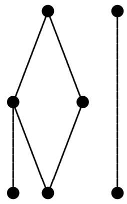
1.511)  420

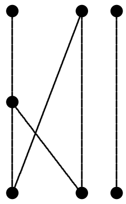
1.512)  420

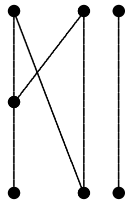
1.513)  5.040

1.514)  5.040

1.515)  5.040

1.516)  5.040

1.517)  2.520

1.518)  2.520

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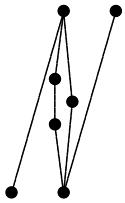
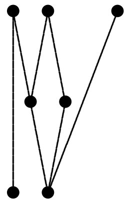
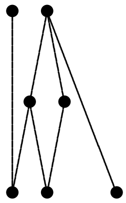
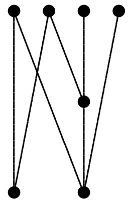
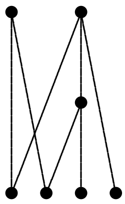
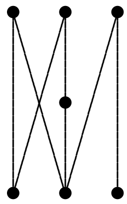
1.519)  5.040

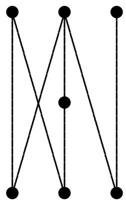
1.520)  5.040

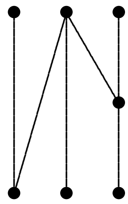
1.521)  5.040

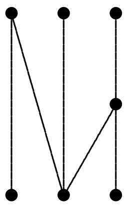
1.522)  5.040

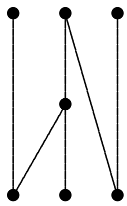
1.523)  5.040

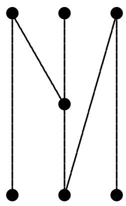
1.524)  5.040

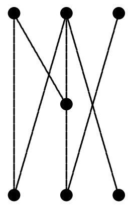
1.525)  5.040

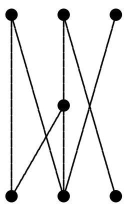
1.526)  5.040

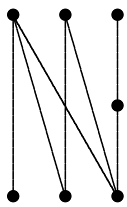
1.527)  5.040

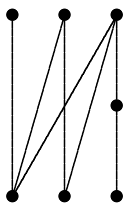
1.528)  5.040

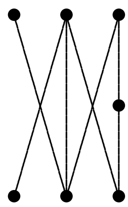
1.529)  5.040

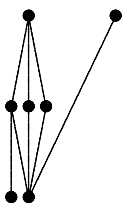
1.530)  5.040

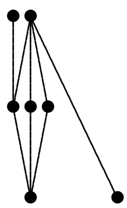
1.531)  5.040

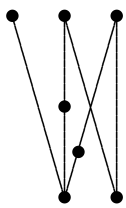
1.532)  5.040

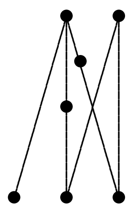
1.533)  5.040

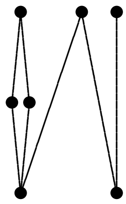
1.534)  5.040

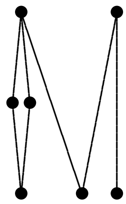
1.535)  2.520

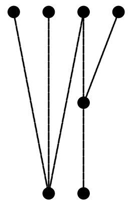
1.536)  2.520

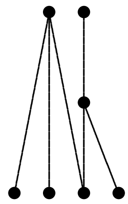
1.537)  2.520

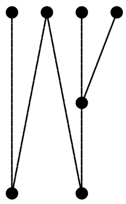
1.538)  2.520

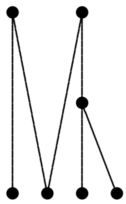
1.539)  2.520

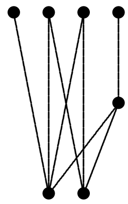
1.540)  2.520

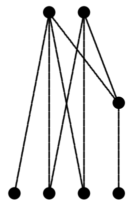
1.541)  2.520

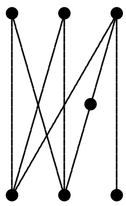
1.542)  2.520

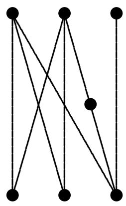
1.543)  2.520

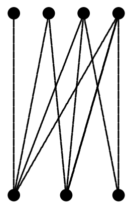
1.544)  2.520

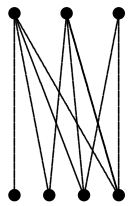
1.545)  2.520

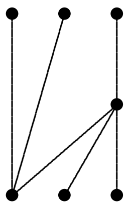
1.546)  2.520

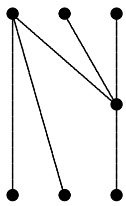
1.547)  2.520

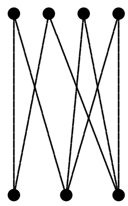
1.548)  2.520

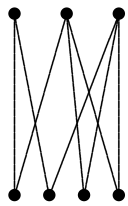
1.549)  2.520

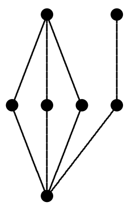
1.550)  2.520

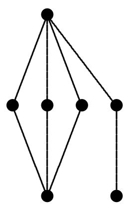
1.551)  1.260

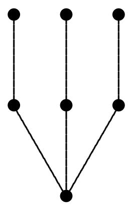
1.552)  1.260

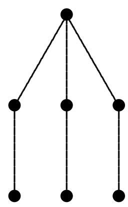
1.553)  1.260

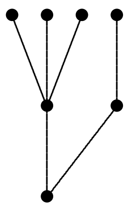
1.554)  1.260

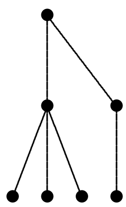
1.555)  840

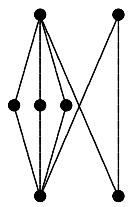
1.556)  840

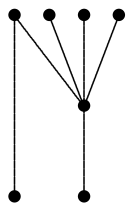
1.557)  840

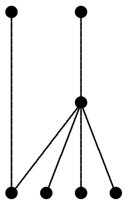
1.558)  840

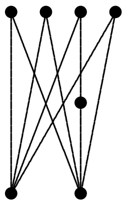
1.559)  840

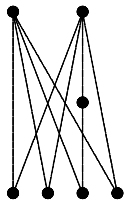
1.560)  840

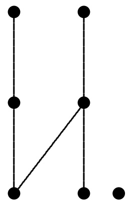
1.561)  840

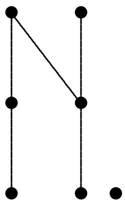
1.562)  840

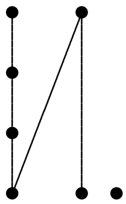
1.563)  840

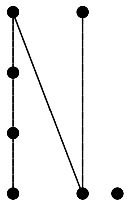
1.564)  840

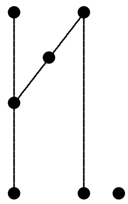
1.565)  840

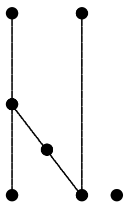
1.566)  5.040

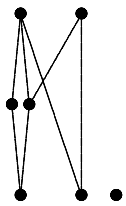
1.567)  5.040

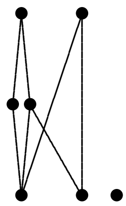
1.568)  5.040

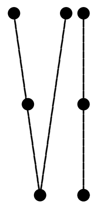
1.569)  5.040

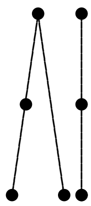
1.570)  5.040

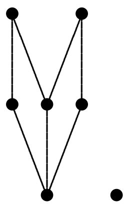
1.571)  5.040

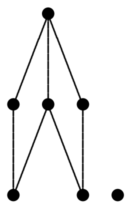
1.572)  5.040

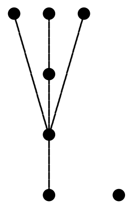
1.573)  5.040

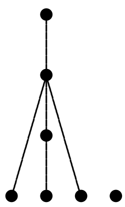
1.574)  5.040

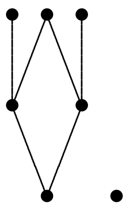
1.575)  5.040

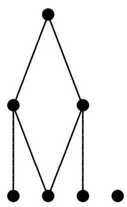
1.576)  2.520

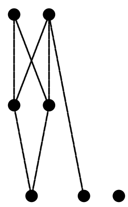
1.577)  2.520

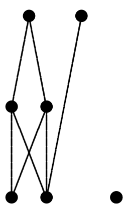
1.578)  2.520

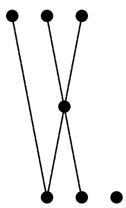
1.579)  2.520

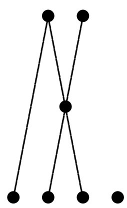
1.580)  2.520

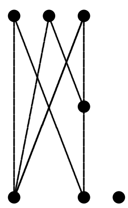
1.581)  2.520

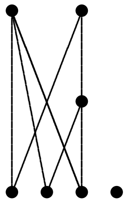
1.582)  2.520

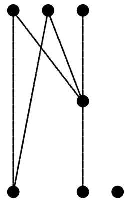
1.583)  2.520

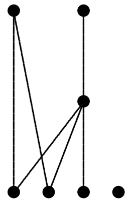
1.584)  2.520

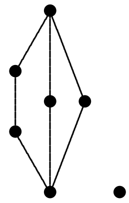
1.585)  2.520

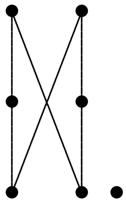
1.586)  2.520

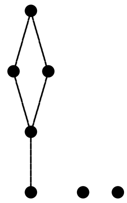
1.587)  2.520

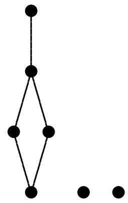
1.588)  2.520

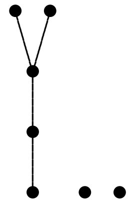
1.589)  2.520

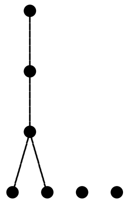
1.590)  2.520

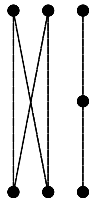
1.591)  2.520

1.592)  1.260

1.593)  1.260

1.594)  1.260

1.595)  1.260

1.596)  1.260

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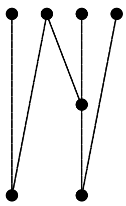
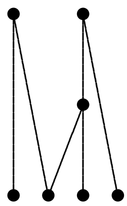
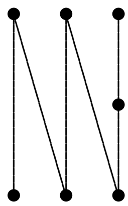
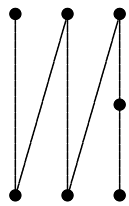
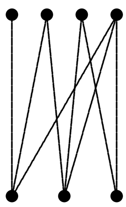
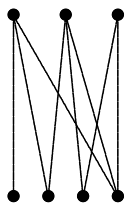
1.597)  5.040

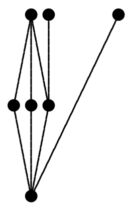
1.598)  5.040

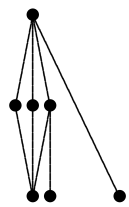
1.599)  5.040

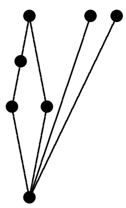
1.600)  5.040

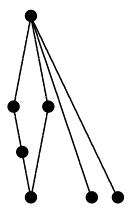
1.601)  5.040

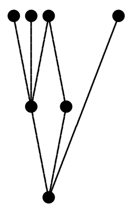
1.602)  5.040

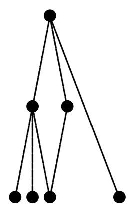
1.603)  2.520

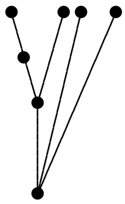
1.604)  2.520

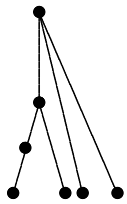
1.605)  2.520

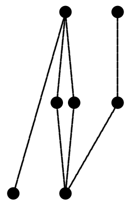
1.606)  2.520

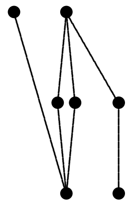
1.607)  2.520

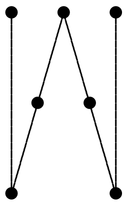
1.608)  2.520

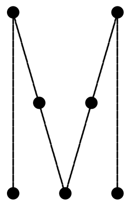
1.609)  2.520

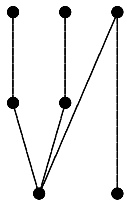
1.610)  2.520

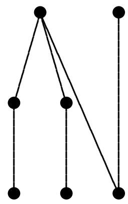
1.611)  2.520

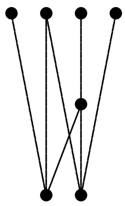
1.612)  2.520

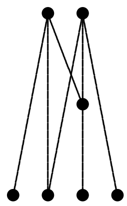
1.613)  2.520

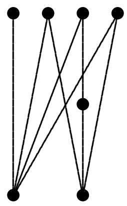
1.614)  2.520

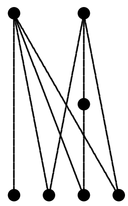
1.615)  2.520

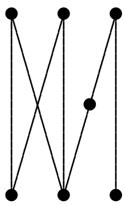
1.616)  2.520

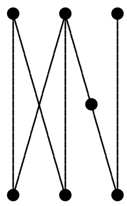
1.617)  2.520

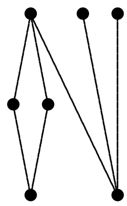
1.618)  2.520

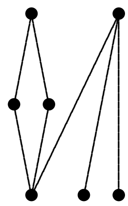
1.619)  2.520

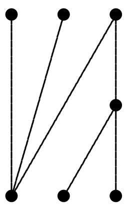
1.620)  2.520

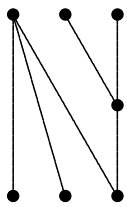
1.621)  2.520

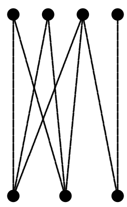
1.622)  2.520

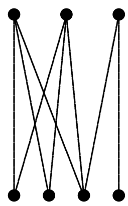
1.623)  1.260

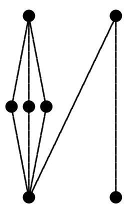
1.624)  1.260

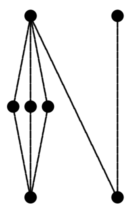
1.625)  1.260

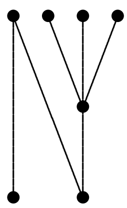
1.626)  1.260

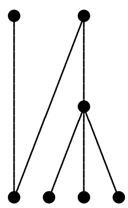
1.627)  1.260

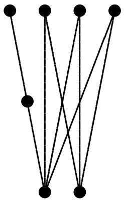
1.628)  1.260

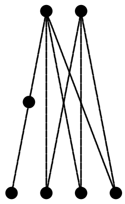
1.629)  840

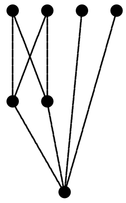
1.630)  840

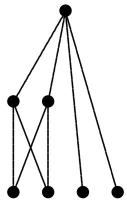
1.631)  840

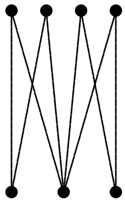
1.632)  840

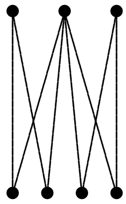
1.633)  840

1.634)  840

1.635)  630

1.636)  630

1.637)  630

1.638)  630

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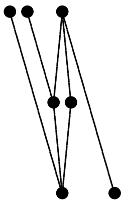
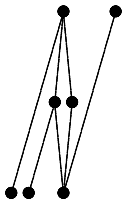
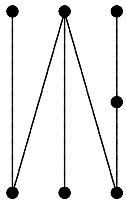
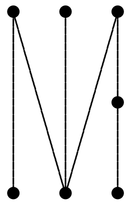
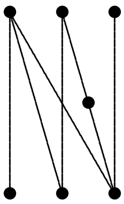
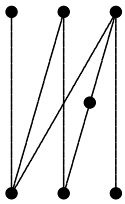
1.639)  5.040

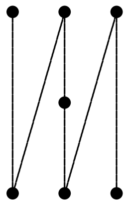
1.640)  5.040

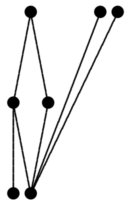
1.641)  5.040

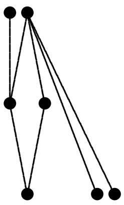
1.642)  5.040

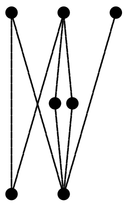
1.643)  5.040

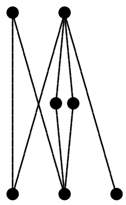
1.644)  5.040

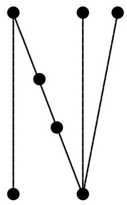
1.645)  5.040

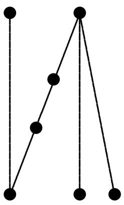
1.646)  2.520

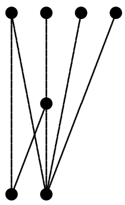
1.647)  2.520

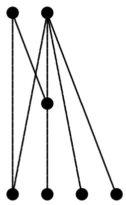
1.648)  2.520

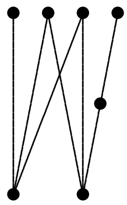
1.649)  2.520

1.650)  2.520

1.651)  2.520

1.652)  2.520

1.653)  2.520

1.654)  2.520

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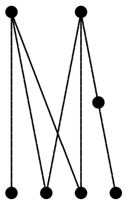
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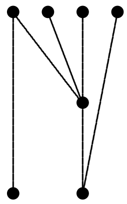
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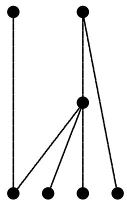
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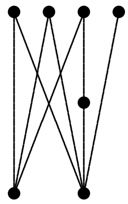
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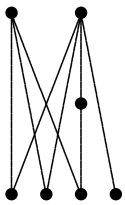
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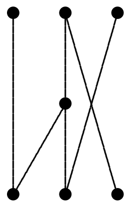
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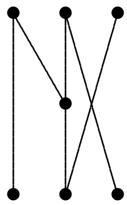
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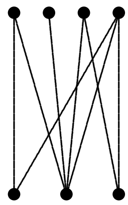
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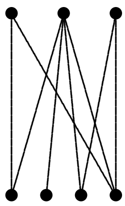
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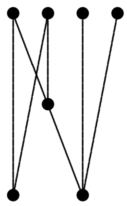
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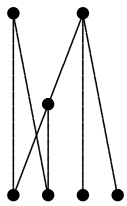
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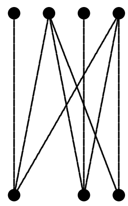
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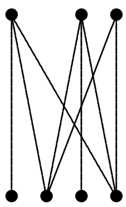
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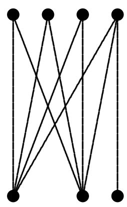
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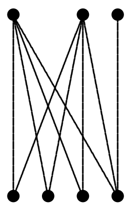
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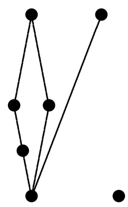
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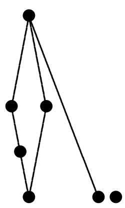
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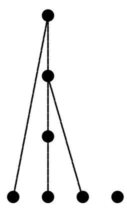
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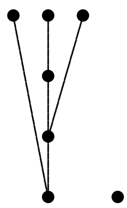
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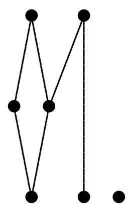
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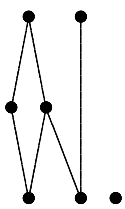
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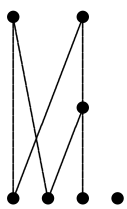
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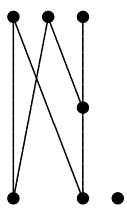
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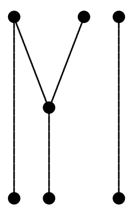
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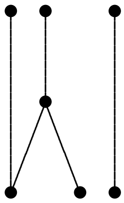
1.679) 
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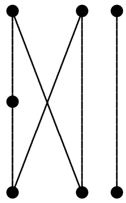
1.680) 
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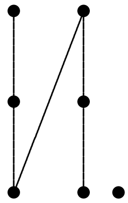
1.681) 
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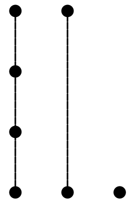
1.682) 
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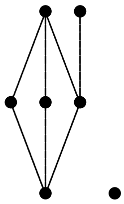
1.683) 
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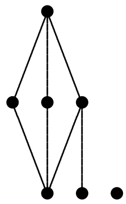
1.684) 
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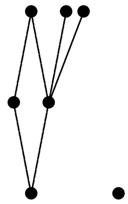
1.685) 
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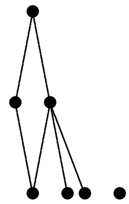
1.686) 
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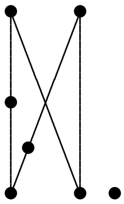
1.687) 
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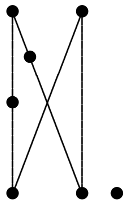
1.688) 
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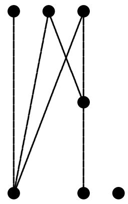
1.689) 
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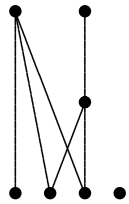
1.690) 
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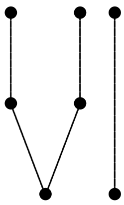
1.691) 
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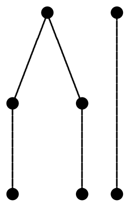
1.692) 
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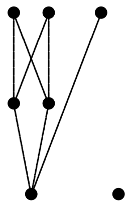
1.693) 
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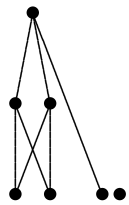
1.694) 
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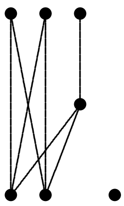
1.695) 
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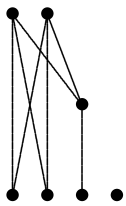
1.696) 
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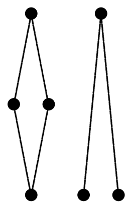
1.697) 
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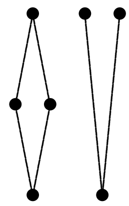
1.698) 
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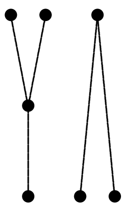
1.699) 
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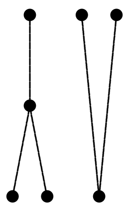
1.700) 
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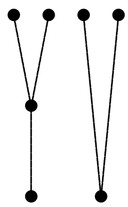
1.701) 
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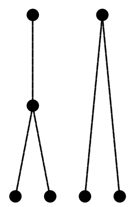
1.702) 
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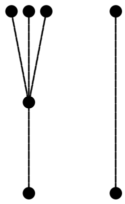
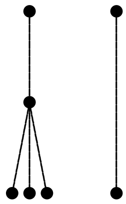
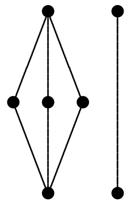
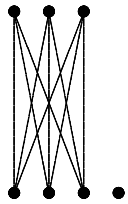
1.703)  840

1.704)  840

1.705)  840

1.706)  140

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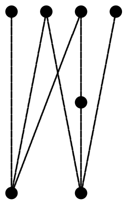
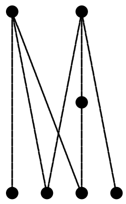
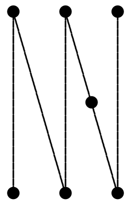
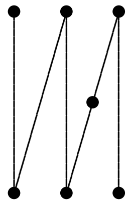
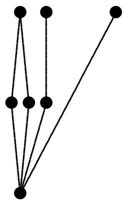
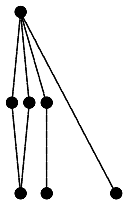
1.707)  5.040

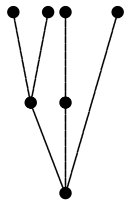
1.708)  5.040

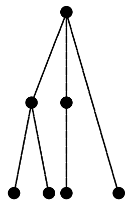
1.709)  5.040

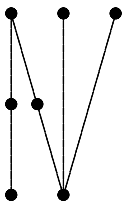
1.710)  5.040

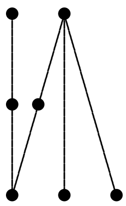
1.711)  2.520

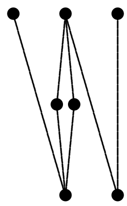
1.712)  2.520

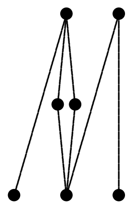
1.713)  2.520

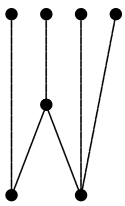
1.714)  2.520

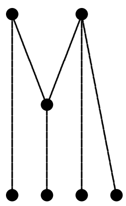
1.715)  2.520

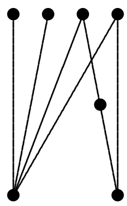
1.716)  2.520

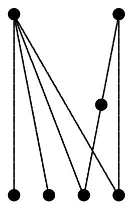
1.717)  2.520

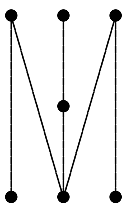
1.718)  2.520

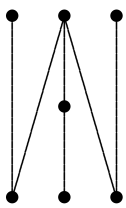
1.719)  2.520

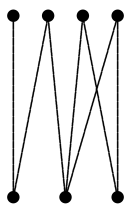
1.720)  2.520

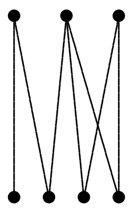
1.721)  2.520

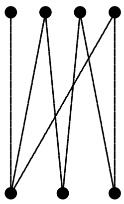
1.722)  2.520

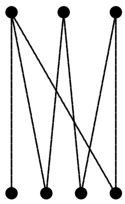
1.723)  2.520

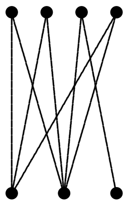
1.724)  2.520

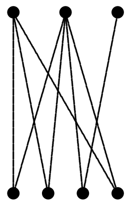
1.725)  2.520

1.726)  2.520

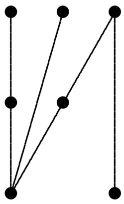
1.727)  2.520

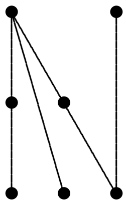
1.728)  2.520

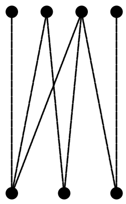
1.729)  840

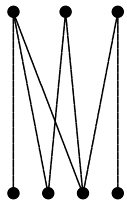
1.730)  840

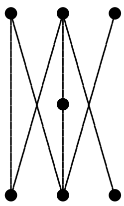
$|RB(\mathbf{7})| = 32$

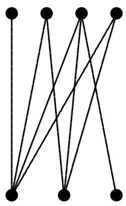
1.731)  5.040

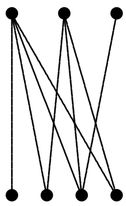
1.732)  5.040

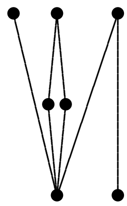
1.733)  5.040

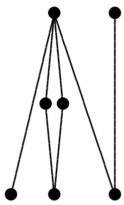
1.734)  5.040

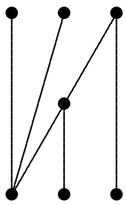
1.735)  5.040

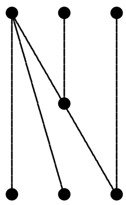
1.736)  2.520

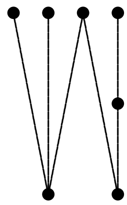
1.737)  2.520

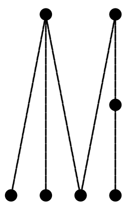
1.738)  2.520

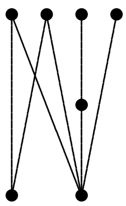
1.739)  2.520

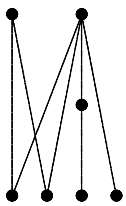
1.740)  2.520

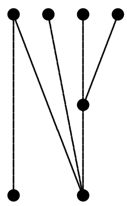
1.741)  2.520

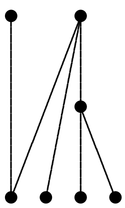
1.742)  2.520

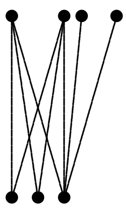
1.743)  2.520

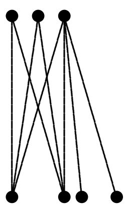
1.744)  2.520

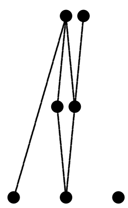
1.745)  2.520

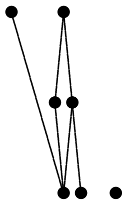
1.746)  2.520

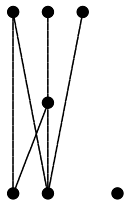
1.747)  2.520

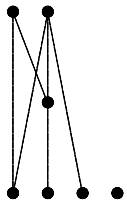
1.748)  630

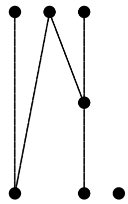
1.749)  630

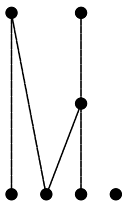
1.750)  5.040

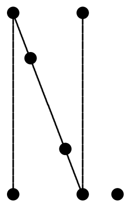
1.751)  5.040

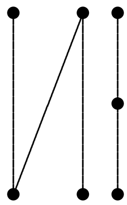
1.752)  5.040

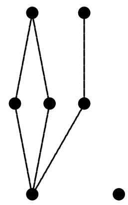
1.753)  5.040

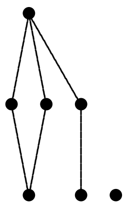
1.754)  5.040

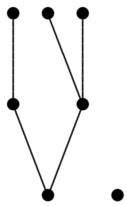
1.755)  5.040

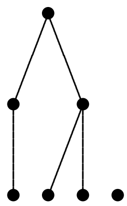
1.756)  5.040

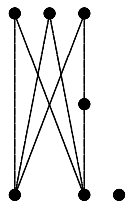
1.757)  5.040

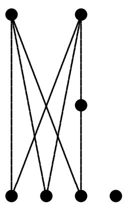
1.758)  2.520

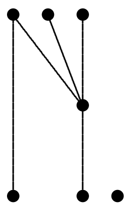
1.759)  2.520

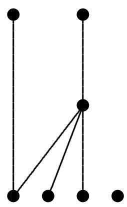
1.760)  2.520

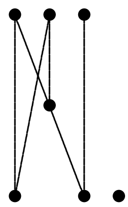
1.761)  2.520

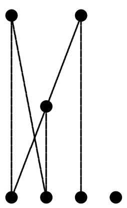
1.762)  2.520

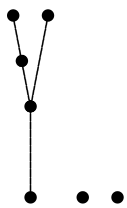
1.763)  2.520

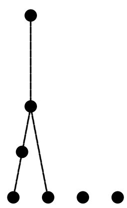
1.764)  2.520

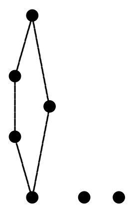
1.765)  2.520

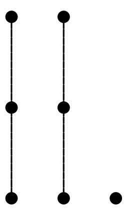
1.766)  2.520

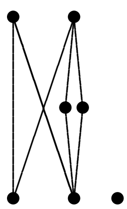
1.767)  2.520

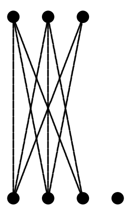
1.768)  2.520

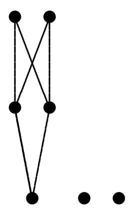
1.769)  2.520

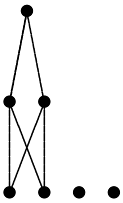
1.770)  2.520

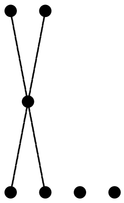
1.771)  2.520

1.772)  2.520

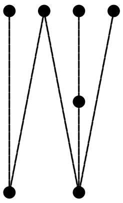
1.773)  1.260

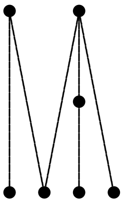
1.774)  630

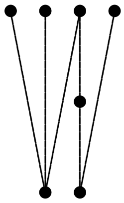
1.775)  630

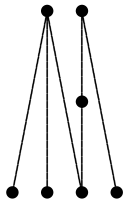
1.776)  630

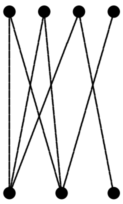
$|RB(\mathbf{7})| = 33$

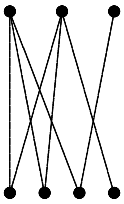
1.777)  5.040

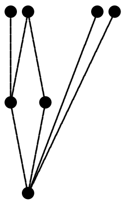
1.778)  5.040

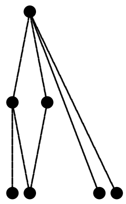
1.779)  2.520

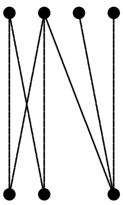
1.780)  2.520

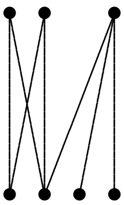
1.781)  2.520

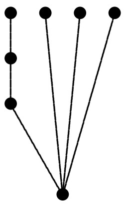
1.782)  2.520

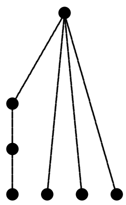
1.783)  2.520

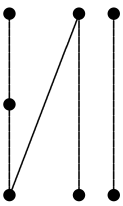
1.784)  2.520

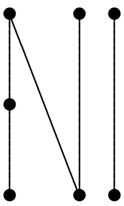
1.785)  1.260

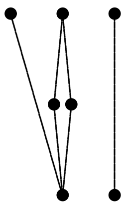
1.786)  1.260

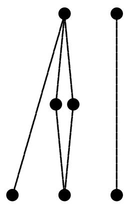
1.787)  840

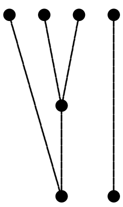
1.788)  840

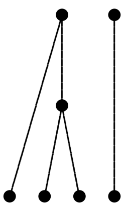
1.789)  5.040

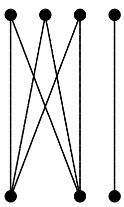
1.790)  5.040

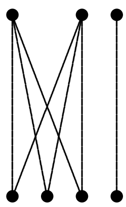
1.791)  2.520

1.792)  2.520

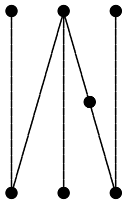
1.793)  2.520

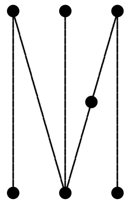
1.794)  2.520

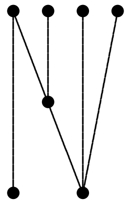
1.795)  420

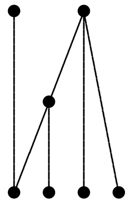
1.796)  420

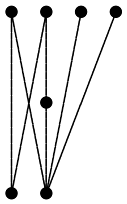
$|RB(\mathbf{7})| = 34$

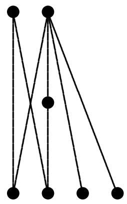
1.797)  5.040

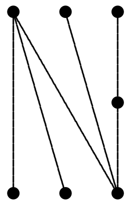
1.798)  5.040

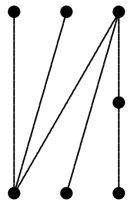
1.799)  2.520

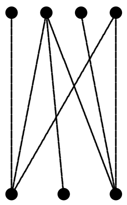
1.800)  2.520

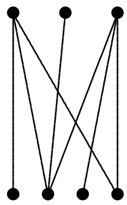
1.801)  2.520

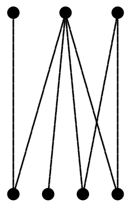
1.802)  2.520

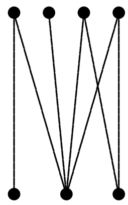
1.803)  2.520

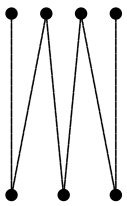
1.804)  2.520

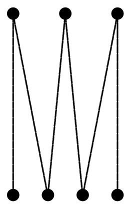
1.805)  2.520

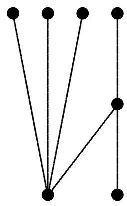
1.806)  2.520

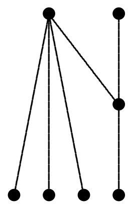
1.807)  2.520

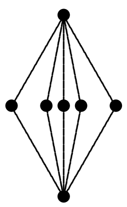
1.808)  2.520

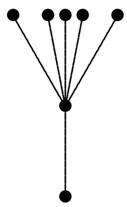
1.809)  2.520

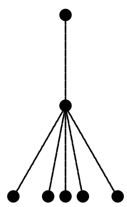
1.810)  2.520

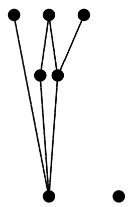
1.811)  840

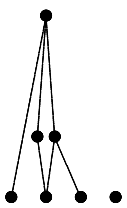
1.812)  840

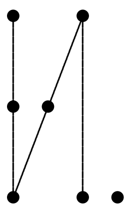
1.813)  42

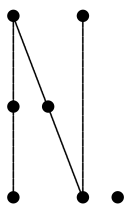
1.814)  42

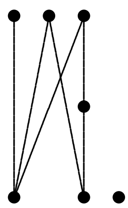
1.815)  42

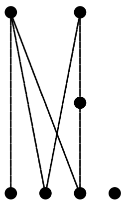
1.816)  5.040

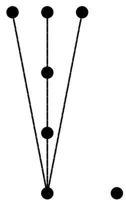
1.817)  5.040

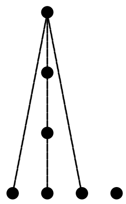
1.818)  5.040

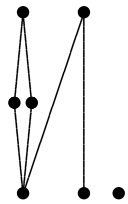
1.819)  5.040

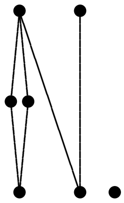
1.820)  5.040

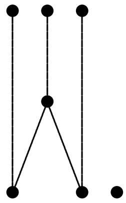
1.821)  5.040

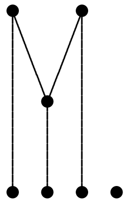
1.822)  2.520

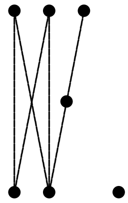
1.823)  2.520

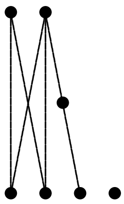
1.824)  2.520

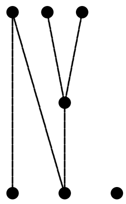
1.825)  2.520

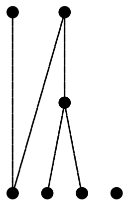
1.826)  2.520

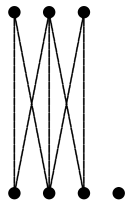
1.827)  2.520

1.828)  2.520

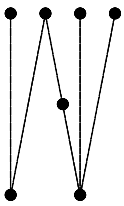
1.829)  2.520

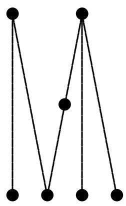
1.830)  2.520

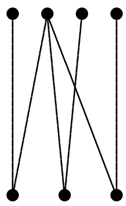
1.831)  2.520

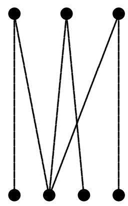
1.832)  2.520

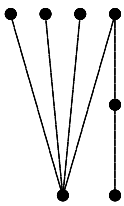
$|RB(\mathbf{7})| = 35$

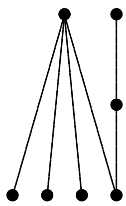
1.833)  2.520

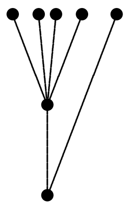
1.834)  2.520

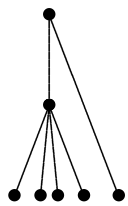
1.835)  840

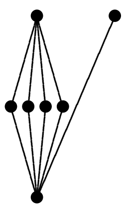
1.836)  840

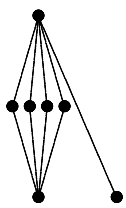
1.837)  840

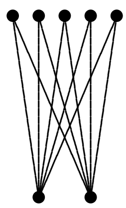
1.838)  840

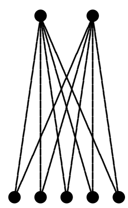
1.839)  210

1.840)  210

1.841)  210

1.842)  210

1.843)  21

1.844)  21

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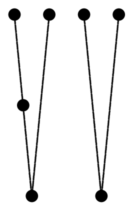
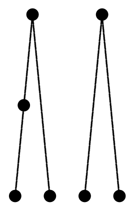

2.520

1.846)

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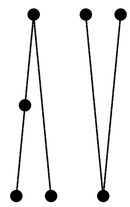
1.847)

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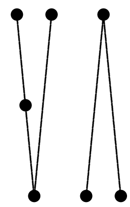
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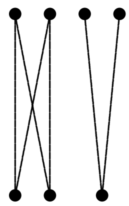
630

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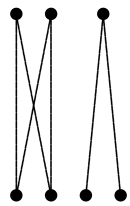
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$|RB(\mathbf{7})| = 36$

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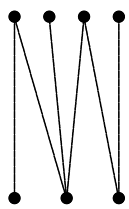
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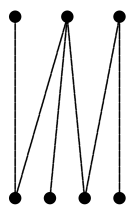
1.852)

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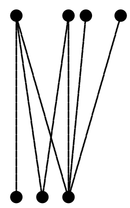
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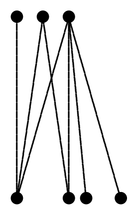
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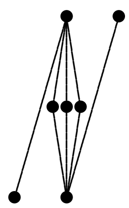
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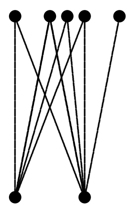
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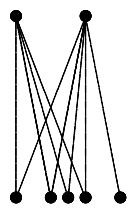
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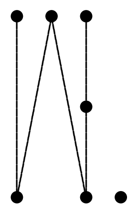
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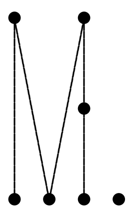
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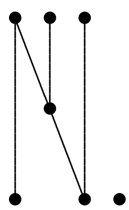
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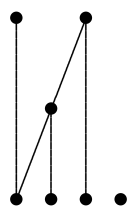
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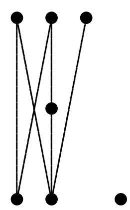
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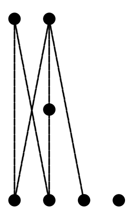
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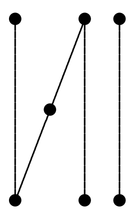
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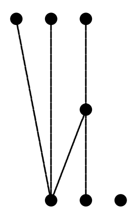
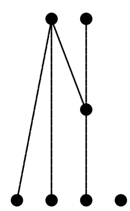

2.520

1.866)

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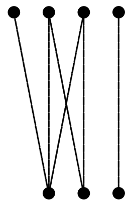
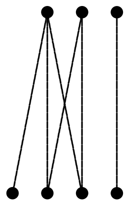
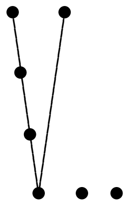
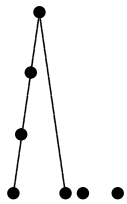
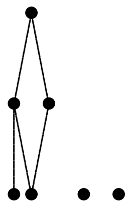
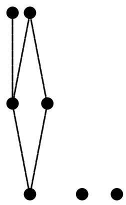
1.867)  2.520

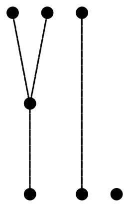
1.868)  2.520

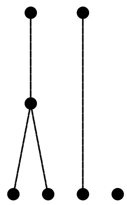
1.869)  2.520

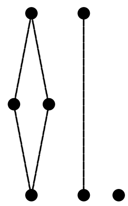
1.870)  2.520

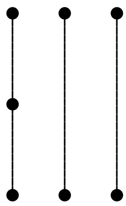
1.871)  2.520

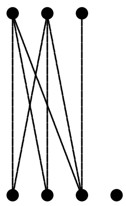
1.872)  2.520

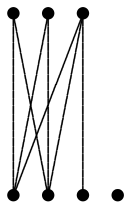
1.873)  2.520

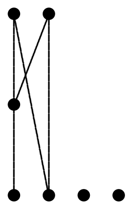
1.874)  2.520

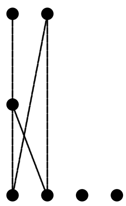
1.875)  2.520

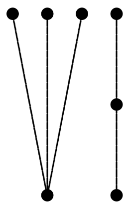
1.876)  2.520

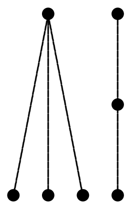
1.877)  1.260

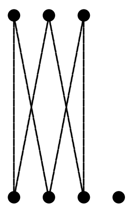
1.878)  1.260

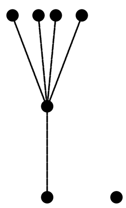
1.879)  1.260

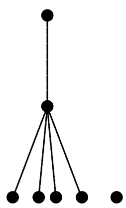
1.880)  1.260

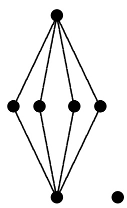
1.881)  840

1.882)  840

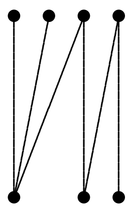
1.883)  840

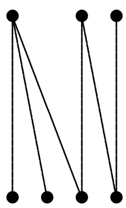
1.884)  210

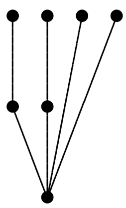
1.885)  210

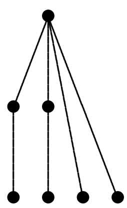
1.886)  210

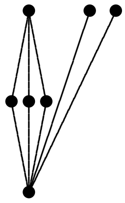
$|RB(\mathbf{7})| = 37$

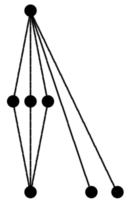
1.887)  2.520

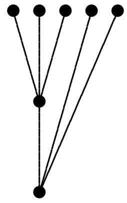
1.888)  2.520

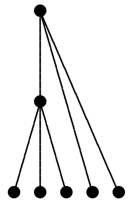
1.889)  1.260

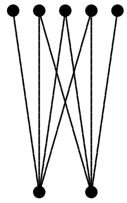
1.890)  1.260

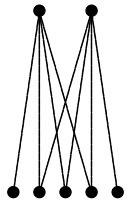
1.891)  420

1.892)  420

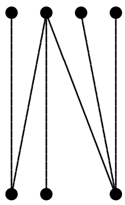
1.893)  420

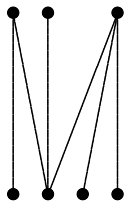
1.894)  420

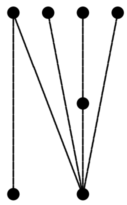
1.895)  420

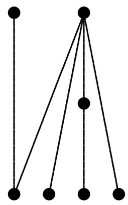
1.896)  420

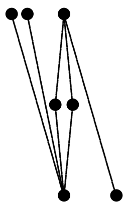
$|RB(\mathbf{7})| = 38$

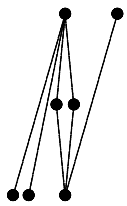
1.897)  2.520

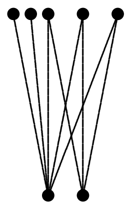
1.898)  2.520

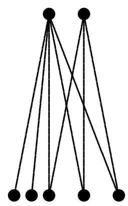
1.899)  2.520

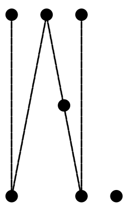
1.900)  2.520

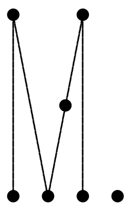
1.901)  1.260

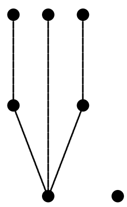
1.902)  1.260

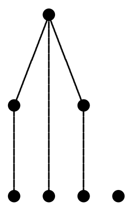
1.903)  420

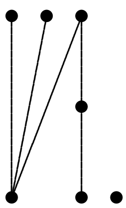
1.904)  420

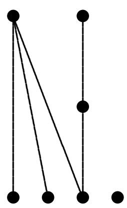
1.905)  5.040

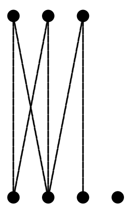
1.906)  5.040

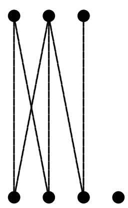
1.907)  2.520

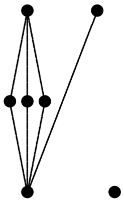
1.908)  2.520

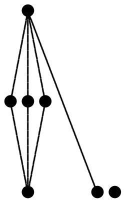
1.909)  2.520

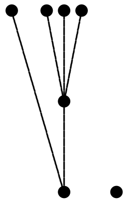
1.910)  2.520

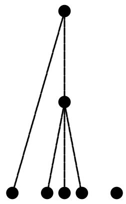
1.911)  2.520

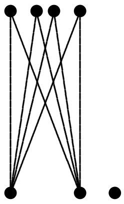
1.912)  2.520

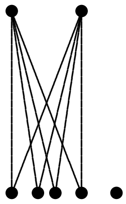
1.913) 
840

1.914) 
840

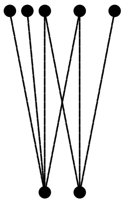
1.915) 
840

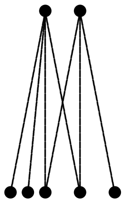
1.916) 
840

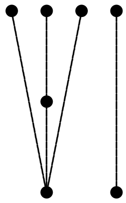
1.917) 
105

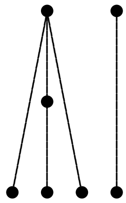
1.918) 
105

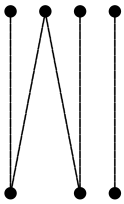
$|RB(\mathbf{7})| = 39$

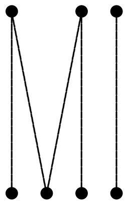
1.919) 
1.260

1.920) 
1.260

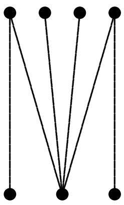
1.921) 
2.520

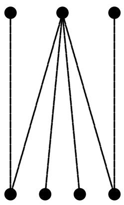
1.922) 
2.520

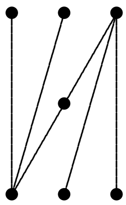
1.923) 
2.520

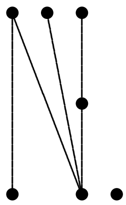
1.924) 
2.520

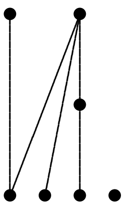
$|RB(\mathbf{7})| = 40$

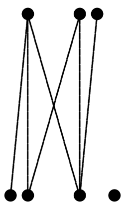
1.925) 
1.260

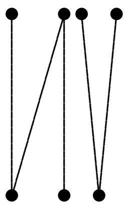
1.926) 
1.260

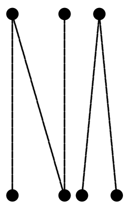
1.927) 
1.260

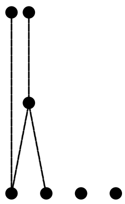
1.928) 
5.040

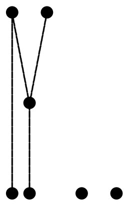
1.929) 
5.040

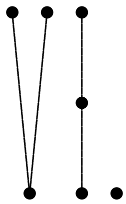
1.930) 
5.040

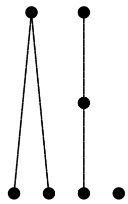
1.931) 
2.520

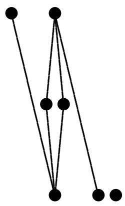
1.932) 
2.520

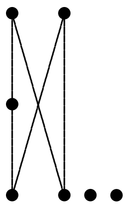
1.933)  2.520

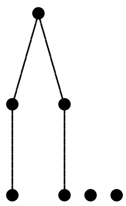
1.934)  2.520

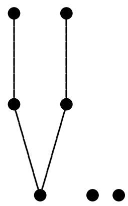
1.935)  2.520

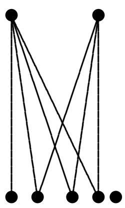
1.936)  2.520

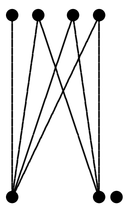
1.937)  2.520

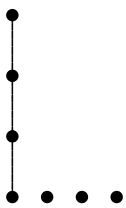
1.938)  2.520

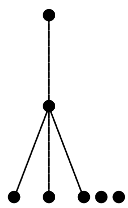
1.939)  1.260

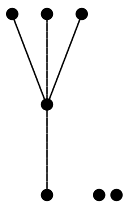
1.940)  1.260

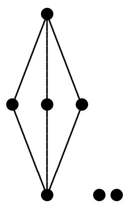
1.941)  840

1.942)  840

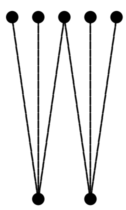
1.943)  840

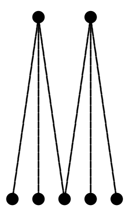
1.944)  420

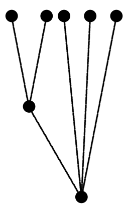
1.945)  420

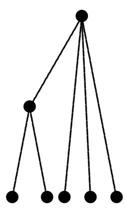
1.946)  420

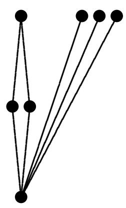
$|RB(\mathbf{7})| = 41$

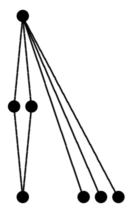
1.947)  630

1.948)  630

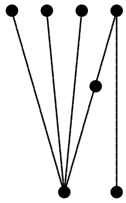
1.949)  420

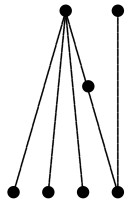
1.950)  420

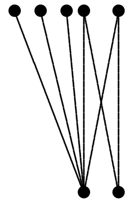
1.951)  420

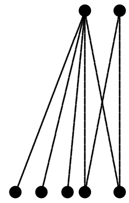
1.952)  420

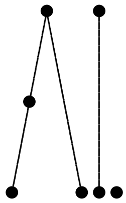
$|RB(\mathbf{7})| = 42$

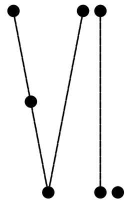
1.953)

840

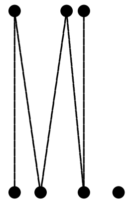
1.954)

840

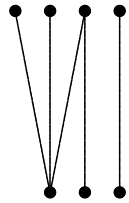
1.955)

420

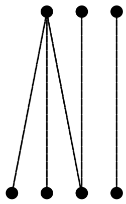
1.956)

420

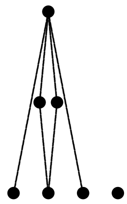
1.957)

5.040

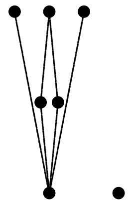
1.958)

5.040

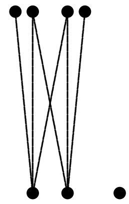
1.959)

5.040

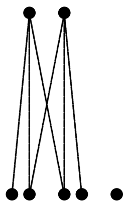
1.960)

2.520

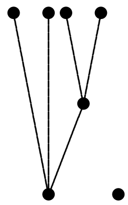
1.961)

2.520

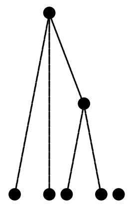
1.962)

1.260

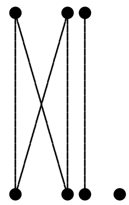
1.963)

1.260

1.964)

1.260

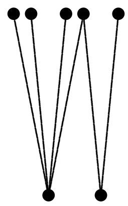
1.965)

1.260

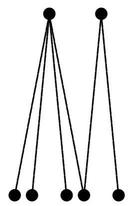
1.966)

1.260

1.967)

1.260

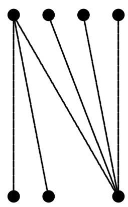
1.968)

1.260

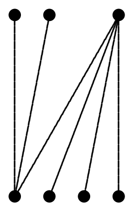
$|RB(\mathbf{7})| = 43$

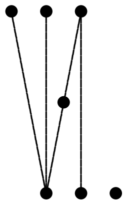
1.969)

840

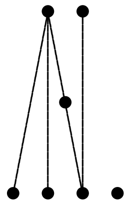
1.970)

840

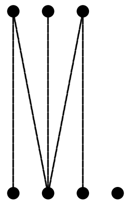
$|RB(\mathbf{7})| = 44$

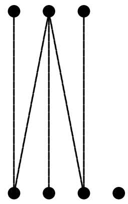
1.971)

420

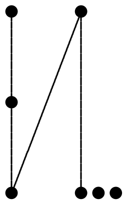
1.972)

420

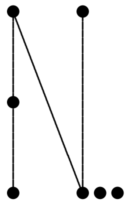
1.973)  2.520

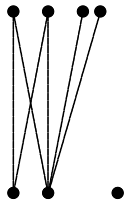
1.974)  2.520

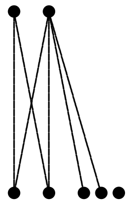
1.975)  2.520

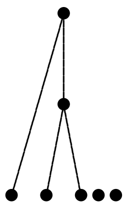
1.976)  2.520

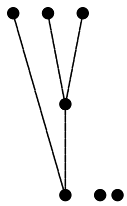
1.977)  2.520

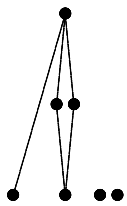
1.978)  2.520

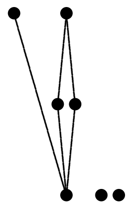
1.979)  1.260

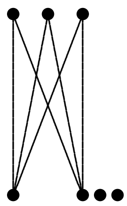
1.980)  1.260

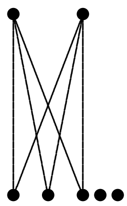
1.981)  1.260

1.982)  1.260

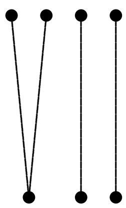
1.983)  1.260

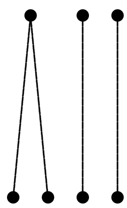
1.984)  1.260

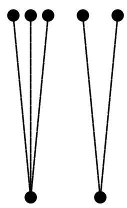
1.985)  210

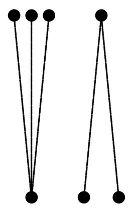
1.986)  210

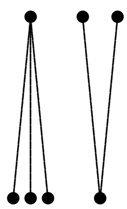
$|RB(\mathbf{7})| = 45$

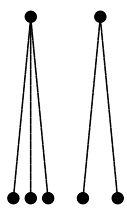
1.987)  1.260

1.988)  1.260

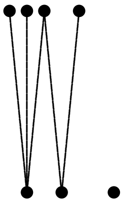
1.989)  420

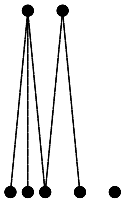
1.990)  420

1.991)  420

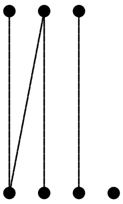
1.992)  420

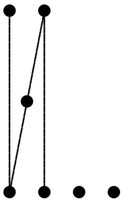
$|RB(\mathbf{7})| = 46$

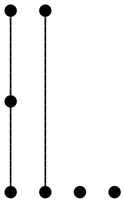
1.993)

2.520

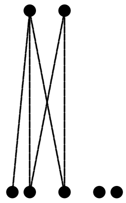
1.994)

2.520

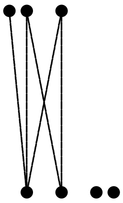
$|RB(\mathbf{7})| = 48$

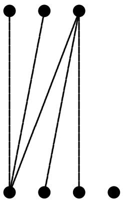
1.995)

5.040

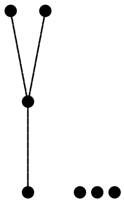
1.996)

2.520

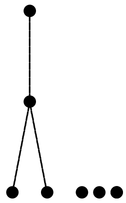
1.997)

2.520

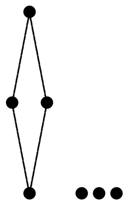
1.998)

1.260

1.999)

1.260

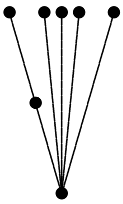
2.000)

1.260

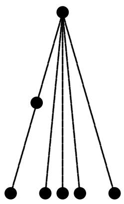
2.001)

420

2.002)

420

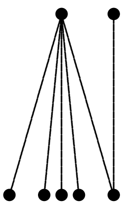
2.003)

420

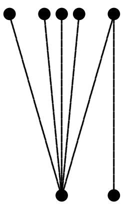
$|RB(\mathbf{7})| = 49$

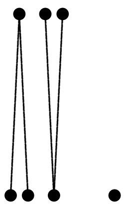
2.004)

210

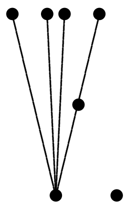
2.005)

210

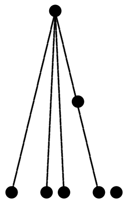
$|RB(\mathbf{7})| = 50$

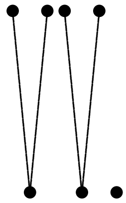
2.006)

210

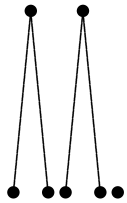
2.007)

210

2.008)

1.260

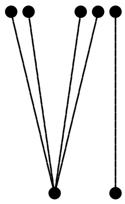
2.009)

840

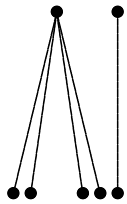
2.010)

840

2.011)

630

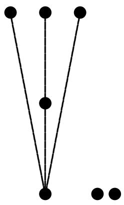
2.012)

630

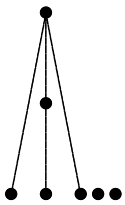
$|RB(\mathbf{7})| = 51$

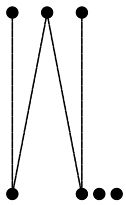
2.013)

210

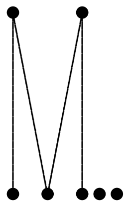
2.014)

210

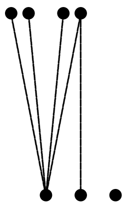
$|RB(\mathbf{7})| = 52$

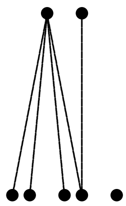
2.015)

1.260

2.016)

1.260

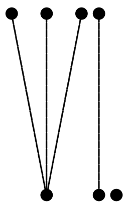
2.017)

1.260

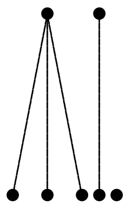
2.018)

1.260

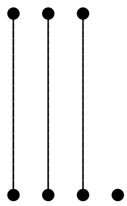
2.019)

840

2.020)

840

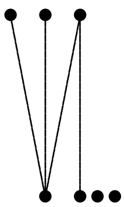
$|RB(\mathbf{7})| = 54$

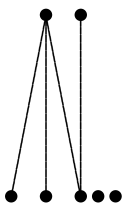
2.021)

840

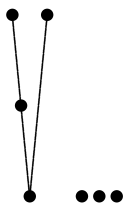
2.022)

840

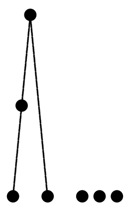
2.023)

840

$|RB(\mathbf{7})| = 56$

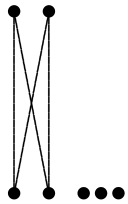
2.024)

1.260

2.025)

1.260

2.026)

840

2.027)

840

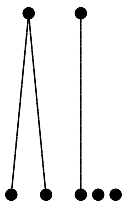
2.028)



210

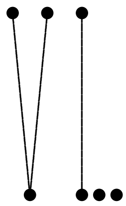
$|RB(\mathbf{7})| = 60$

2.029)



1.260

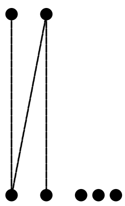
2.030)



1.260

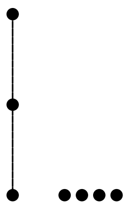
$|RB(\mathbf{7})| = 64$

2.031)



840

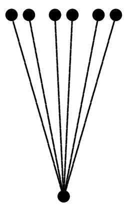
2.032)



210

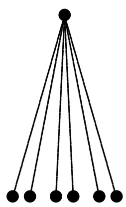
$|RB(\mathbf{7})| = 65$

2.033)



7

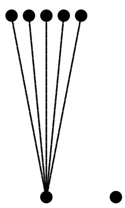
2.034)



7

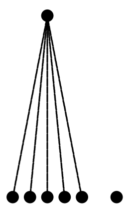
$|RB(\mathbf{7})| = 66$

2.035)



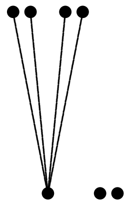
42

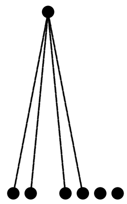
2.036)



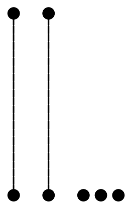
42

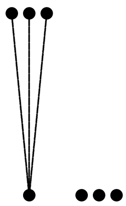
$|RB(\mathbf{7})| = 68$

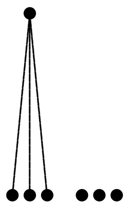
2.037) 
105

2.038) 
105

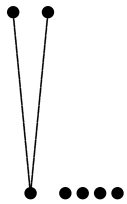
$|RB(\mathbf{7})| = 72$

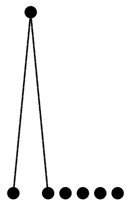
2.039) 
420

2.040) 
140

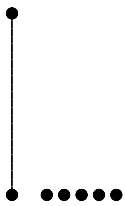
2.041) 
140

$|RB(\mathbf{7})| = 80$

2.042) 
105

2.043) 
105

$|RB(\mathbf{7})| = 96$

2.044) 
42

$|RB(\mathbf{7})| = 128$

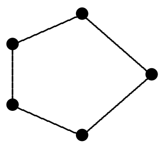
2.045)
1

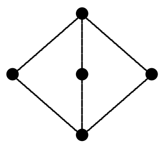
10. Los resultados de S. Savini e I. Viglizzo

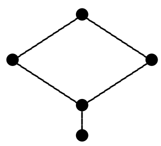
10.1. $PC(n, n-5),\ n \geq 6.$

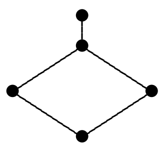
Si $X \in PC(n, n-5)$ entonces $|m(X)| = n-5$ y $|X \setminus m(X)| = 5$. En los diagramas de la izquierda indicamos los posibles posets, no isomorfos, con 5 elementos

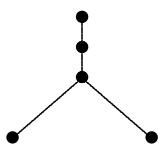
1)  $\binom{n}{n-5}\ 120\ (5^{n-5} - 4^{n-5})$

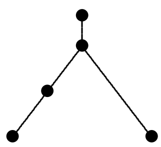
2)  $\binom{n}{n-5}\ 120\ (7^{n-5} - 6^{n-5})$

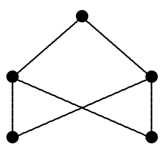
3)  $\binom{n}{n-5}\ 20\ (9^{n-5} - 8^{n-5})$

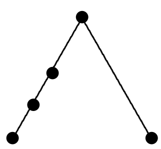
4)  $\binom{n}{n-5}\ 60\ (6^{n-5} - 5^{n-5})$

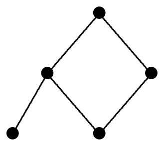
5)  $\binom{n}{n-5}\ 60\ (6^{n-5} - 5^{n-5})$

6)  $\binom{n}{n-5}\ 60\ (6^{n-5} - 2\ 4^{n-5} + 3^{n-5})$

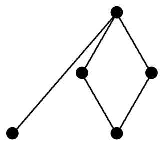
7)  $\binom{n}{n-5}\ 120\ (7^{n-5} - 5^{n-5} - 4^{n-5} + 3^{n-5})$

8)  $\binom{n}{n-5}\ 30\ (7^{n-5} - 2\ 5^{n-5} + 4^{n-5})$

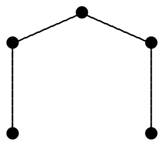
9)  $\binom{n}{n-5}\ 120\ (8^{n-5} - 6^{n-5} - 4^{n-5} + 3^{n-5})$

10) 

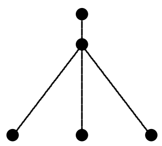
$\binom{n}{n-5}\ 120\ (8^{n-5} - 6^{n-5} - 5^{n-5} + 4^{n-5})$

11) 

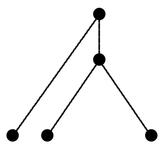
$\binom{n}{n-5}\ 60\ (10^{n-5} - 8^{n-5} - 5^{n-5} + 4^{n-5})$

12) 

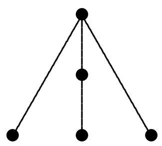
$\binom{n}{n-5}\ 60\ (9^{n-5} - 2\ 6^{n-5} + 4^{n-5})$

13) 

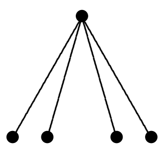
$\binom{n}{n-5}\ 20\ (9^{n-5} - 3\ 5^{n-5} + 3\ 3^{n-5} - 2^{n-5})$

14) 

$\binom{n}{n-5}\ 60\ (10^{n-5} - 2\ 6^{n-5} - 5^{n-5} + 4^{n-5} + 2\ 3^{n-5} - 2^{n-5})$

15) 

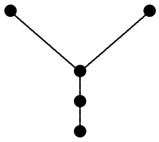
$\binom{n}{n-5}\ 60\ (12^{n-5} - 8^{n-5} - 2\ 6^{n-5} + 2\ 4^{n-5} + 3^{n-5} - 2^{n-5})$

16) 

$\binom{n}{n-5}\ 5\ (16^{n-5} - 4\ 8^{n-5} + 6\ 4^{n-5} - 4\ 2^{n-5} + 1)$

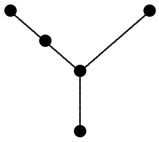
$$|PC(n, n-5, 1)| = \binom{n}{n-5}(5\ 16^{n-5} + 60\ 12^{n-5} + 120\ 10^{n-5} + 100\ 9^{n-5} + 80\ 8^{n-5} + 270\ 7^{n-5} - 540\ 6^{n-5} - 480\ 5^{n-5} + 540\ 3^{n-5} - 160\ 2^{n-5} + 5)$$

17)



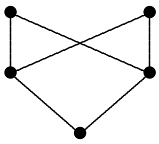
$$\binom{n}{n-5}\, 60\, (6^{n-5} - 5^{n-5})$$

18)



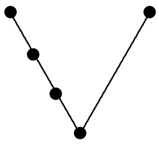
$$\binom{n}{n-5}\, 120\, (7^{n-5} - 6^{n-5})$$

19)



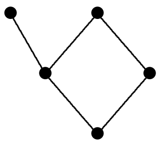
$$\binom{n}{n-5}\, 30\, (7^{n-5} - 6^{n-5})$$

20)



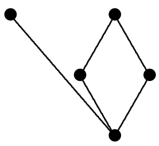
$$\binom{n}{n-5}\, 120\, (8^{n-5} - 7^{n-5})$$

21)



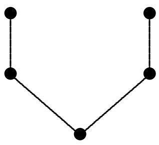
$$\binom{n}{n-5}\, 120\, (8^{n-5} - 7^{n-5})$$

22)



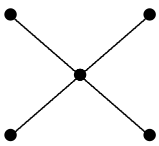
$$\binom{n}{n-5}\, 60\, (10^{n-5} - 9^{n-5})$$

23)

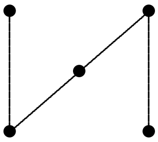


$$\binom{n}{n-5}\, 60\, (9^{n-5} - 8^{n-5})$$

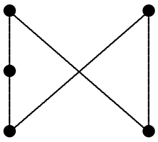
24)



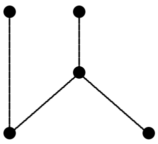
$$\binom{n}{n-5}\, 30\, (7^{n-5} - 2\, 5^{n-5} + 4^{n-5})$$

25) 

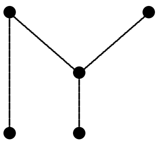
$\binom{n}{n-5}\ 120\ (11^{n-5} - 9^{n-5} - 6^{n-5} + 5^{n-5})$

26) 

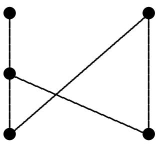
$\binom{n}{n-5}\ 120\ (9^{n-5} - 7^{n-5} - 6^{n-5} + 5^{n-5})$

27) 

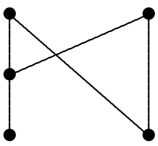
$\binom{n}{n-5}\ 120\ (9^{n-5} - 7^{n-5} - 6^{n-5} + 5^{n-5})$

28) 

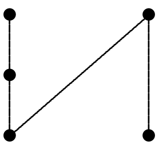
$\binom{n}{n-5}\ 120\ (9^{n-5} - 7^{n-5} - 5^{n-5} + 4^{n-5})$

29) 

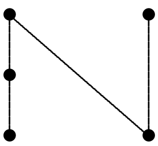
$\binom{n}{n-5}\ 60\ (8^{n-5} - 2\ 6^{n-5} + 5^{n-5})$

30) 

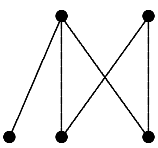
$\binom{n}{n-5}\ 60\ (8^{n-5} - 6^{n-5} - 5^{n-5} + 4^{n-5})$

31) 

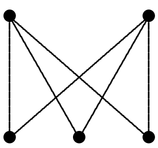
$\binom{n}{n-5}\ 120\ (10^{n-5} - 8^{n-5} - 6^{n-5} + 5^{n-5})$

32) 

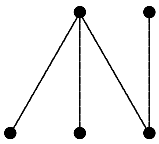
$\binom{n}{n-5}\ 120\ (10^{n-5} - 2\ 7^{n-5} + 5^{n-5})$

33) 

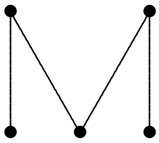
$\binom{n}{n-5}\ 60\ (11^{n-5} - 2\ 7^{n-5} - 6^{n-5} + 5^{n-5} + 2\ 4^{n-5} - 3^{n-5})$

34) 

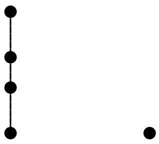
$\binom{n}{n-5}\ 10\ (10^{n-5} - 3\ 6^{n-5} + 3\ 4^{n-5} - 3^{n-5})$

35) 

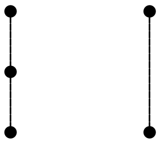
$\binom{n}{n-5}\, 60\, (13^{n-5} - 9^{n-5} - 2\; 7^{n-5} + 2\; 5^{n-5} + 4^{n-5} - 3^{n-5})$

36) 

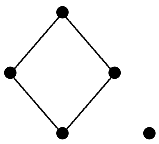
$\binom{n}{n-5}\, 60\, (12^{n-5} - 8^{n-5} - 2\; 7^{n-5} + 2\; 5^{n-5} + 4^{n-5} - 3^{n-5})$

37) 

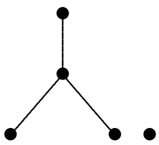
$\binom{n}{n-5}\, 120\, (9^{n-5} - 7^{n-5} - 5^{n-5} + 4^{n-5})$

38) 

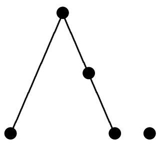
$\binom{n}{n-5}\, 120\, (11^{n-5} - 8^{n-5} - 7^{n-5} + 2\; 4^{n-5} - 3^{n-5})$

39) 

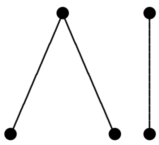
$\binom{n}{n-5}\, 60\, (11^{n-5} - 9^{n-5} - 6^{n-5} + 5^{n-5})$

40) 

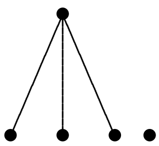
$\binom{n}{n-5}\, 60\, (11^{n-5} - 2\; 7^{n-5} - 6^{n-5} + 5^{n-5} + 2\; 4^{n-5} - 3^{n-5})$

41) 

$\binom{n}{n-5}\, 120\, (13^{n-5} - 9^{n-5} - 2\; 7^{n-5} + 2\; 5^{n-5} + 4^{n-5} - 3^{n-5})$

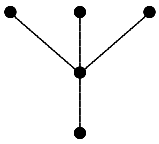
42) 

$\binom{n}{n-5}\, 60\, (14^{n-5} - 9^{n-5} - 2\; 8^{n-5} - 6^{n-5} + 4\; 5^{n-5} + 2\; 4^{n-5} - 4\; 3^{n-5} + 2^{n-5})$

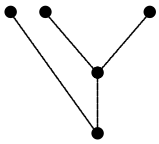
43) 

$\binom{n}{n-5}\, 20\, (17^{n-5} - 4\; 9^{n-5} + 6\; 5^{n-5} - 4\; 3^{n-5} + 2^{n-5})$

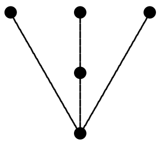
$$|PC(n, n-5, 2)| = \binom{n}{n-5}(20\; 17^{n-5} + 60\; 14^{n-5} + 180\; 13^{n-5} + 60\; 12^{n-5} + 420\; 11^{n-5} + 310\; 10^{n-5} - 20\; 9^{n-5} - 120\; 8^{n-5} - 1.620\; 7^{n-5} - 1.020\; 6^{n-5} + 1.260\; 5^{n-5} + 1.200\; 4^{n-5} - 810\; 3^{n-5} + 80\; 2^{n-5})$$

44) 

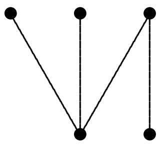
$\binom{n}{n-5}\; 20\; (9^{n-5} - 8^{n-5})$

45) 

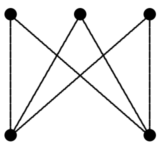
$\binom{n}{n-5}\; 60\; (10^{n-5} - 9^{n-5})$

46) 

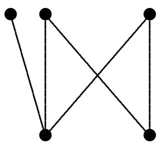
$\binom{n}{n-5}\; 60\; (12^{n-5} - 11^{n-5})$

47) 

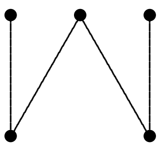
$\binom{n}{n-5}\; 60\; (13^{n-5} - 11^{n-5} - 8^{n-5} + 7^{n-5})$

48) 

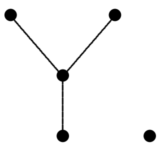
$\binom{n}{n-5}\; 10\; (10^{n-5} - 2\; 8^{n-5} + 7^{n-5})$

49) 

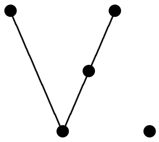
$\binom{n}{n-5}\; 60\; (11^{n-5} - 9^{n-5} - 8^{n-5} + 7^{n-5})$

50) 

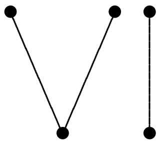
$\binom{n}{n-5}\; 60\; (12^{n-5} - 2\; 9^{n-5} + 7^{n-5})$

51) 

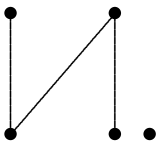
$\binom{n}{n-5}\; 60\; (11^{n-5} - 9^{n-5} - 6^{n-5} + 5^{n-5})$

52) 

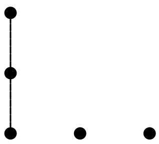
$\binom{n}{n-5}\ 120\ (13^{n-5} - 11^{n-5} - 7^{n-5} + 6^{n-5})$

53) 

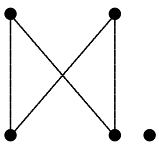
$\binom{n}{n-5}\ 60\ (14^{n-5} - 11^{n-5} - 9^{n-5} + 7^{n-5} - 6^{n-5} + 2\ 5^{n-5} - 4^{n-5})$

54) 

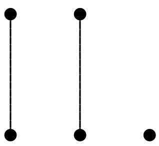
$\binom{n}{n-5}\ 120\ (15^{n-5} - 11^{n-5} - 9^{n-5} - 8^{n-5} + 7^{n-5} + 6^{n-5} + 5^{n-5} - 4^{n-5})$

55) 

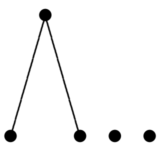
$\binom{n}{n-5}\ 60\ (15^{n-5} - 11^{n-5} - 2\ 8^{n-5} + 6^{n-5} + 3\ 5^{n-5} - 2\ 4^{n-5})$

56) 

$\binom{n}{n-5}\ 30\ (13^{n-5} - 2\ 9^{n-5} + 2\ 5^{n-5} - 4^{n-5})$

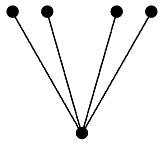
57) 

$\binom{n}{n-5}\ 60\ (17^{n-5} - 2\ 11^{n-5} - 9^{n-5} - 7^{n-5} + 4\ 6^{n-5} + 4\ 5^{n-5} - 7\ 4^{n-5} + 2\ 3^{n-5})$

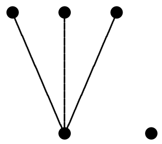
58) 

$\binom{n}{n-5}\ 30\ (19^{n-5} - 2\ 11^{n-5} - 2\ 10^{n-5} + 6\ 6^{n-5} + 2\ 5^{n-5} - 7\ 4^{n-5} + 2\ 3^{n-5})$

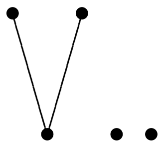
$$|PC(n,n-5,3)| = \binom{n}{n-5}(30\ 19^{n-5} + 60\ 17^{n-5} + 180\ 15^{n-5} + 60\ 14^{n-5} + 210\ 13^{n-5} +$$
$$120\ 12^{n-5} - 540\ 11^{n-5} + 10\ 10^{n-5} - 580\ 9^{n-5} - 400\ 8^{n-5} + 190\ 7^{n-5} + 600\ 6^{n-5} +$$
$$840\ 5^{n-5} - 960\ 4^{n-5} + 180\ 3^{n-5})$$

59) 

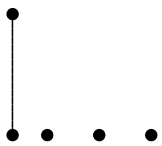
$$\binom{n}{n-5}\ 5\ (16^{n-5} - 15^{n-5})$$

60) 

$$\binom{n}{n-5}\ 20\ (17^{n-5} - 15^{n-5} - 9^{n-5} + 8^{n-5})$$

61) 

$$\binom{n}{n-5}\ 30\ (19^{n-5} - 15^{n-5} - 2\ 10^{n-5} + 2\ 8^{n-5} - 7^{n-5} +$$
$$3\ 6^{n-5} - 2\ 5^{n-5})$$

62) 

$$\binom{n}{n-5}\ 20\ (23^{n-5} - 15^{n-5} - 3\ 12^{n-5} - 9^{n-5} + 8^{n-5}$$
$$6\ 7^{n-5} + 9\ 6^{n-5} - 18\ 5^{n-5} + 6\ 4^{n-5})$$

$$|PC(n,n-5,4)| = \binom{n}{n-5}(20\ 23^{n-5} + 30\ 19^{n-5} + 20\ 17^{n-5} +$$
$$5\ 16^{n-5} - 75\ 15^{n-5} - 60\ 12^{n-5} - 60\ 10^{n-5} - 40\ 9^{n-5} + 100\ 8^{n-5} +$$
$$90\ 7^{n-5} + 270\ 6^{n-5} - 420\ 5^{n-5} + 120\ 4^{n-5})$$

63)

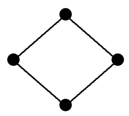
$$|PC(n,n-5,5)| = \binom{n}{n-5}(31^{n-5} - 5\ 16^{n-5} - 10\ 10^{n-5} +$$
$$20\ 9^{n-5} + 30\ 7^{n-5} - 60\ 6^{n-5} + 24\ 5^{n-5})$$
$$|PC(n,n-5)| = \binom{n}{n-5}(31^{n-5} + 20\ 23^{n-5} + 60\ 19^{n-5} + 100\ 17^{n-5} +$$
$$5\ 16^{n-5} + 105\ 15^{n-5} + 120\ 14^{n-5} + 390\ 13^{n-5} - 120\ 11^{n-5} +$$
$$250\ 10^{n-5} - 620\ 9^{n-5} - 424\ 8^{n-5} - 1.310\ 7^{n-5} - 210\ 6^{n-5} +$$
$$2.804\ 5^{n-5} + 366\ 4^{n-5} - 630\ 3^{n-5} + 76\ 2^{n-5} + 1)$$

10.2. $PC(n, n-4),\ n \geq 5.$

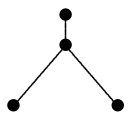
Si $X \in PC(n, n-4)$ entonces $|m(X)| = n-4$ y $|X \setminus m(X)| = 4$. En los diagramas de la izquierda indicamos los posibles posets, no isomorfos, con 4 elementos

1) 

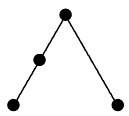
$\binom{n}{n-4}\, 24\, (4^{n-4} - 3^{n-4})$

2) 

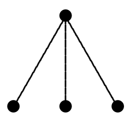
$\binom{n}{n-4}\, 12\, (5^{n-4} - 4^{n-4})$

3) 

$\binom{n}{n-4}\, 12\, (5^{n-4} - 2\; 3^{n-4} + 2^{n-4})$

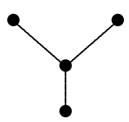
4) 

$\binom{n}{n-4}\, 24\, (6^{n-4} - 4^{n-4} - 3^{n-4} + 2^{n-4})$

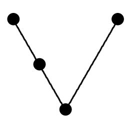
5) 

$\binom{n}{n-4}\, 4\, (8^{n-4} - 3\; 4^{n-4} + 3\; 2^{n-4} - 1)$

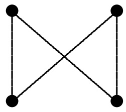
$$|PC(n, n-4, 1)| = \binom{n}{n-4} (4\; 8^{n-4} + 24\; 6^{n-4} + 24\; 5^{n-4} - 24\; 4^{n-4} - 72\; 3^{n-4} + 48\; 2^{n-4} - 4)$$

6) 

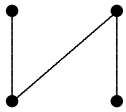
$\binom{n}{n-4}\, 12\, (5^{n-4} - 4^{n-4})$

7) 

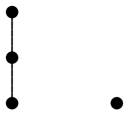
$\binom{n}{n-4}\, 24\, (6^{n-4} - 5^{n-4})$

8) 

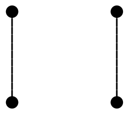
$\binom{n}{n-4}\, 6\,(6^{n-4} - 2\; 4^{n-4} + 3^{n-4})$

9) 

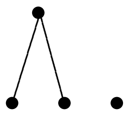
$\binom{n}{n-4}\, 24\,(7^{n-4} - 5^{n-4} - 4^{n-4} + 3^{n-4})$

10) 

$\binom{n}{n-4}\, 24\,(7^{n-4} - 5^{n-4} - 4^{n-4} + 3^{n-4})$

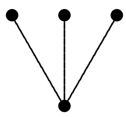
11) 

$\binom{n}{n-4}\, 12\,(8^{n-4} - 2\; 5^{n-4} - 4^{n-4} + 3\; 3^{n-4} - 2^{n-4})$

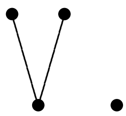
12) 

$\binom{n}{n-4}\, 12\,(9^{n-4} - 3\; 5^{n-4} + 3\; 3^{n-4} - 2^{n-4})$

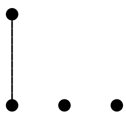
$$|PC(n, n-4, 2)| = \binom{n}{n-4}(12\; 9^{n-4} + 12\; 8^{n-4} + 48\; 7^{n-4} + 30\; 6^{n-4} - 120\; 5^{n-4} - 84\; 4^{n-4} + 126\; 3^{n-4} - 24\; 2^{n-4})$$

13) 

$\binom{n}{n-4}\, 4\,(8^{n-4} - 7^{n-4})$

14) 

$\binom{n}{n-4}\, 12\,(9^{n-4} - 7^{n-4} - 5^{n-4} + 4^{n-4})$

15) 

$\binom{n}{n-4}\, 12\,(11^{n-4} - 7^{n-4} - 2\; 6^{n-4} - 5^{n-4} + 5\; 4^{n-4} - 2\; 3^{n-4})$

$$|PC(n, n-4, 3)| = \binom{n}{n-4}(12\ 11^{n-4} + 12\ 9^{n-4} + 4\ 8^{n-4} - 28\ 7^{n-4} - 24\ 6^{n-4} - 24\ 5^{n-4} +$$

$$72\ 4^{n-4} - 24\ 3^{n-4})$$

16) • • • •

$$|PC(n, n-4, 4)| = \binom{n}{n-4}(15^{n-4} - 4\ 8^{n-4} - 3\ 6^{n-4} + 12\ 5^{n-4} - 6\ 4^{n-4})$$

$$|PC(n, n-4)| = \binom{n}{n-4}(15^{n-4} + 12\ 11^{n-4} + 24\ 9^{n-4} + 16\ 8^{n-4} + 20\ 7^{n-4} +$$

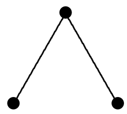
$$27\ 6^{n-4} - 108\ 5^{n-4} - 42\ 4^{n-4} + 30\ 3^{n-4} + 24\ 2^{n-4} - 4)$$

10.3. $PC(n, n-3),\ n \geq 4.$

Si $X \in PC(n, n-3)$ entonces $|m(X)| = n - 3$ y $|X \setminus m(X)| = 3$. En los diagramas de la izquierda indicamos los posibles posets, no isomorfos, con 3 elementos

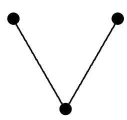
1) 

$\binom{n}{n-3}\ 6(3^{n-3} - 2^{n-3})$

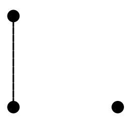
2) 

$\binom{n}{n-3}\ 3(4^{n-3} - 2\ 2^{n-3} + 1)$

$$|PC(n, n-3, 1)| = \binom{n}{n-3}(3\ 4^{n-3} + 6\ 3^{n-3} - 12\ 2^{n-3} + 3)$$

3) 

$\binom{n}{n-3}\ 3(4^{n-3} - 3^{n-3})$

4) 

$\binom{n}{n-3}\ 6(5^{n-3} - 2\ 3^{n-3} + 2^{n-3})$

$$|PC(n, n-3, 2)| = \binom{n}{n-3}(6\ 5^{n-3} + 3\ 4^{n-3} - 15\ 3^{n-3} + 6\ 2^{n-3})$$

5) • • •

$$|PC(n,n-3,3)| = \binom{n}{n-3}\,(7^{n-3} - 3\;4^{n-3} + 2\;3^{n-3}).$$

$$|PC(n,n-3)| = \binom{n}{n-3}(7^{n-3} + 6\;5^{n-3} + 3\;4^{n-3} - 7\;3^{n-3} - 6\;2^{n-3} + 3)$$

$|PC(n,n-3,3)|$ se determina del siguiente modo. Sea $M(X) = \{1,2,3\}$ y consideremos los conjuntos (ver definición de P_i en la sección **2**):

$$A_1 = P_1 \cap \overline{P_2} \cap \overline{P_3},\;\; A_2 = P_1 \cap P_2 \cap \overline{P_3},\;\; A_3 = P_1 \cap P_2 \cap P_3,$$

$$A_4 = P_1 \cap \overline{P_2} \cap P_3,\;\; A_5 = \overline{P_1} \cap P_2 \cap \overline{P_3},\;\; A_6 = \overline{P_1} \cap P_2 \cap P_3,$$

$$A_7 = \overline{P_1} \cap \overline{P_2} \cap P_3.$$

y $A = \{A_1, A_2, A_3, A_4, A_5, A_6, A_7\}$. Luego $\bigcup_{i=1}^{7} A_i = \bigcup_{i=1}^{3} P_i$.

Sea $G = \{A_1, \ldots, A_7\}^{m(X)}$, luego $|G| = 7^{n-3}$.
Como el poset debe ser conexo entonces buscamos el conjunto F de las funciones que satisfagan:

$$B_1 = A_2 \cup A_3 \cup A_4 \neq \emptyset,\;\; B_2 = A_2 \cup A_3 \cup A_6 \neq \emptyset,\;\; B_3 = A_3 \cup A_4 \cup A_6 \neq \emptyset.$$

Cabe aclarar que si decimos $A_i \neq \emptyset$ esto debe entenderse como una abreviatura de "el conjunto de las funciones $g \in G$ tales que para algún $x \in m(X)$, $g(x) \in A_i$". Observemos que estas condiciones implican:

$$P_1 = A_1 \cup A_2 \cup A_3 \cup A_4 \neq \emptyset,\;\; P_2 = A_2 \cup A_3 \cup A_5 \cup A_6 \neq \emptyset,$$

$$P_3 = A_3 \cup A_4 \cup A_6 \cup A_7 \neq \emptyset.$$

Tenemos entonces que

$$F = \{g \in G : \text{ existen } x, y, z \in m(X) \text{ tal que } g(x) \in B_1,\; g(y) \in B_2,\; g(z) \in B_3\}$$

Nos interesa determinar $|F|$. Observemos que

$$|F| = |G| - |\overline{F}| = 7^{n-3} - |\overline{F}|$$

y que

$$\overline{F} = \bigcup_{i=1}^{3} F_i$$

donde

$$F_1 = \{g \in G : g(x) \in A_1 \cup A_5 \cup A_6 \cup A_7,\; \forall x \in m(X)\}$$

$$F_2 = \{g \in G : g(x) \in A_1 \cup A_4 \cup A_5 \cup A_7,\; \forall x \in m(X)\}$$

$$F_3 = \{g \in G : g(x) \in A_1 \cup A_2 \cup A_5 \cup A_7,\ \forall x \in m(X)\}$$

Observemos que:

$$F_1 \cap F_2 = \{g \in G : g(x) \in A_1 \cup A_5 \cup A_7,\ \forall x \in m(X)\}$$

$$F_1 \cap F_3 = \{g \in G : g(x) \in A_1 \cup A_5 \cup A_7,\ \forall x \in m(X)\}$$

$$F_2 \cap F_3 = \{g \in G : g(x) \in A_1 \cup A_5 \cup A_7,\ \forall x \in m(X)\}$$

$$F_1 \cap F_2 \cap F_3 = \{g \in G : g(x) \in A_1 \cup A_5 \cup A_7,\ \forall x \in m(X)\}$$

luego

$$|\overline{F}| = \sum_{i=1}^{3} |F_i| - |F_1 \cap F_2| - |F_1 \cap F_3| - |F_2 \cap F_3| + |F_1 \cap F_2 \cap F_3|$$

y como

$$|F_1| = |F_2| = |F_3| = 4^{n-3}$$

y

$$|F_1 \cap F_2| = |F_1 \cap F_3| = |F_2 \cap F_3| = |F_1 \cap F_2 \cap F_3| = 3^{n-3}$$

entonces

$$|\overline{F}| = 3\ 4^{n-3} - 2\ 3^{n-3}$$

luego

$$|F| = 7^{n-3} - (3\ 4^{n-3} - 2\ 3^{n-3}) = 7^{n-3} - 3\ 4^{n-3} + 2\ 3^{n-3}$$

10.4. $PC(n, n-2),\ n \geq 3.$

Si $X \in PC(n, n-2)$ entonces $|m(X)| = n - 2$ y $|X \setminus m(X)| = 2$. En los diagramas de la izquierda indicamos los posibles posets, no isomorfos, con 2 elementos

1) 

$$|PC(n, n-2, 1)| = \binom{n}{n-2}(2\ 2^{n-2} - 2)$$

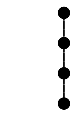
2)

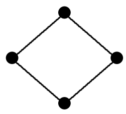
$$|PC(n, n-2, 2)| = \binom{n}{n-2}(3^{n-2} - 2^{n-2})$$

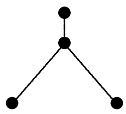
$$|PC(n, n-2)| = \binom{n}{n-2}\left(3^{n-2} + 2^{n-2} - 2\right).$$

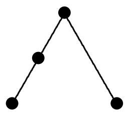
10.5. $PNC(n, n-4),\ n \geq 5.$

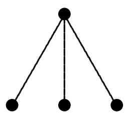
Si $X \in PNC(n, n-4)$ entonces $|m(X)| = n-4$ y $|X \setminus m(X)| = 4$. En los diagramas de la izquierda indicamos los posibles posets, no isomorfos, con 4 elementos

1)  $\binom{n}{n-4}\, 24\, (5^{n-4} - 2\; 4^{n-4} + 3^{n-4})$

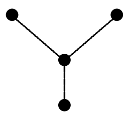
2)  $\binom{n}{n-4}\, 12\, (6^{n-4} - 2\; 5^{n-4} + 4^{n-4})$

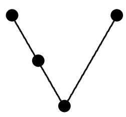
3)  $\binom{n}{n-4}\, 12\, (6^{n-4} - 5^{n-4} - 2\; 4^{n-4} + 3\; 3^{n-4} - 2^{n-4})$

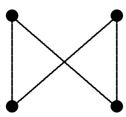
4)  $\binom{n}{n-4}\, 24\, (7^{n-4} - 6^{n-4} - 5^{n-4} + 2\; 3^{n-4} - 2^{n-4})$

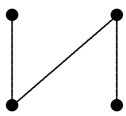
5)  $\binom{n}{n-4}\, 4\, (9^{n-4} - 8^{n-4} - 3\; 5^{n-4} + 3\; 4^{n-4} + 3\; 3^{n-4} - 4\; 2^{n-4} + 1)$

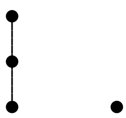
$$PNC^{(')}(n, n-4, 1) = \binom{n}{n-4}(4\; 9^{n-4} - 4\; 8^{n-4} + 24\; 7^{n-4} - 48\; 5^{n-4} - 48\; 4^{n-4} + 120\; 3^{n-4} - 52\; 2^{n-4} + 4)$$

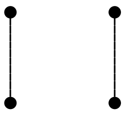
6)  $\binom{n}{n-4}\, 12\, (6^{n-4} - 2\; 5^{n-4} + 4^{n-4})$

7)  $\binom{n}{n-4}\, 24\, (7^{n-4} - 2\; 6^{n-4} + 5^{n-4})$

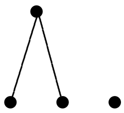
8)  $\binom{n}{n-4}\, 6\, (7^{n-4} - 6^{n-4} - 2\; 5^{n-4} + 3\; 4^{n-4} - 3^{n-4})$

9)  $\binom{n}{n-4}\, 24\, (8^{n-4} - 7^{n-4} - 6^{n-4} + 2\; 4^{n-4} - 3^{n-4})$

10)  $\binom{n}{n-4}\, 24\, (8^{n-4} - 7^{n-4} - 6^{n-4} + 5^{n-4})$

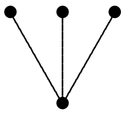
11) 

$\binom{n}{n-4}$ 12 $(9^{n-4} - 8^{n-4} - 2\ 6^{n-4} + 2\ 5^{n-4} + 2\ 4^{n-4} - 3\ 3^{n-4} + 2^{n-4})$

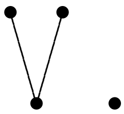
12) 

$\binom{n}{n-4}$ 12 $(10^{n-4} - 9^{n-4} - 2\ 6^{n-4} + 2\ 5^{n-4} + 4^{n-4} - 3^{n-4})$

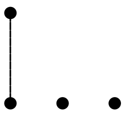
$$PNC^{(')}(n, n-4, 2) = \binom{n}{n-4}(12\ 10^{n-4} + 36\ 8^{n-4} - 18\ 7^{n-4} - 138\ 6^{n-4} + 60\ 5^{n-4} + 114\ 4^{n-4} - 78\ 3^{n-4} + 12\ 2^{n-4}).$$

13) 

$\binom{n}{n-4}$ 4 $(9^{n-4} - 2\ 8^{n-4} + 7^{n-4})$

14) 

$\binom{n}{n-4}$ 12 $(10^{n-4} - 9^{n-4} - 8^{n-4} + 7^{n-4})$

15) 

$\binom{n}{n-4}$ 12 $(12^{n-4} - 11^{n-4} - 8^{n-4} + 7^{n-4} + 5^{n-4} - 3\ 4^{n-4} + 3\ 3^{n-4} - 2^{n-4})$

$$PNC^{(')}(n, n-4, 3) = \binom{n}{n-4}(12\ 12^{n-4} - 12\ 11^{n-4} + 12\ 10^{n-4} - 8\ 9^{n-4} - 32\ 8^{n-4} + 28\ 7^{n-4} + 12\ 5^{n-4} - 36\ 4^{n-4} + 36\ 3^{n-4} - 12\ 2^{n-4}).$$

16)

$$PNC^{(')}(n, n-4, 4) = \binom{n}{n-4}(16^{n-4} - 15^{n-4} + 3\ 6^{n-4} - 12\ 5^{n-4} + 12\ 4^{n-4} - 4\ 2^{n-4} + 1).$$

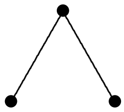
$$PNC(n, n-4) = \binom{n}{n-4}(16^{n-4} - 15^{n-4} + 12\ 12^{n-4} - 12\ 11^{n-4} + 24\ 10^{n-4} - 4\ 9^{n-4} + 34\ 7^{n-4} - 135\ 6^{n-4} + 12\ 5^{n-4} + 42\ 4^{n-4} + 78\ 3^{n-4} - 56\ 2^{n-4} + 5).$$

10.6. $|PNC(n, n-3)|,\ n \geq 4$.

Si $X \in PNC(n, n-3)$ entonces $|m(X)| = n-3$ y $|X \setminus m(X)| = 3$. En los diagramas de la izquierda indicamos los posibles posets, no isomorfos, con 3 elementos

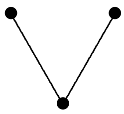
1) 

$\binom{n}{n-3}\ 6(4^{n-3} - 2\ 3^{n-3} + 2^{n-3})$

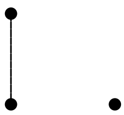
2) 

$\binom{n}{n-3}\ 3(5^{n-3} - 4^{n-3} - 2\ 3^{n-3} + 3\ 2^{n-3} - 1)$

$$|PNC^{(\prime)}(n, n-3, 1)| = \binom{n}{n-3}(3\ 5^{n-3} + 3\ 4^{n-3} - 18\ 3^{n-3} + 15\ 2^{n-3} - 3).$$

3) 

$\binom{n}{n-3}\ 3(5^{n-3} - 2\ 4^{n-3} + 3^{n-3})$

4) 

$\binom{n}{n-3}\ 6(6^{n-3} - 5^{n-3} - 4^{n-3} + 3^{n-3})$

$$|PNC^{(\prime)}(n, n-3, 2)| = \binom{n}{n-3}(6\ 6^{n-3} - 3\ 5^{n-3} - 12\ 4^{n-3} + 9\ 3^{n-3}).$$

5)

$$|PNC^{(\prime)}(n, n-3, 3)| = \binom{n}{n-3}\ (8^{n-3} - 7^{n-3} - 2\ 3^{n-3} + 3\ 2^{n-3} - 1).$$

$$|PNC(n, n-3)| = \binom{n}{n-3}(8^{n-3} - 7^{n-3} + 6\ 6^{n-3} - 9\ 4^{n-3} - 11\ 3^{n-3} + 18\ 2^{n-3} - 4).$$

10.7. $|PNC(n, n-2)|,\ n \geq 3$.

Si $X \in PNC(n, n-2)$ entonces $|m(X)| = n-2$ y $|X \setminus m(X)| = 2$. En los diagramas de la izquierda indicamos los posibles posets, no isomorfos, con 2 elementos

1) 

$|PNC^{(\prime)}(n, n-2, 1)| = \binom{n}{n-2}\ (2\ 3^{n-2} - 4\ 2^{n-2} + 2)$

2) • • $|PNC^{(')}(n,n-2,2)| = \binom{n}{n-2}\left(4^{n-2} - 3^{n-2} - 2^{n-2} + 1\right)$

Luego

$$|PNC(n,n-2)| = \binom{n}{n-2}\left(4^{n-2} + 3^{n-2} - 5\ 2^{n-2} + 3\right)$$

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