





genera solución:

1º genera aleatorio entre $\{z_1, \dots, z_{12}\}$

$P_1 = \{z_{11}\}$, $\rightarrow z_{11}$ es adyacente a $\{z_{10}, z_{12}\}$ elegir aleato-

$P_1 = \{z_{11}, z_{12}\}$ $\rightarrow z_{12}$ es adyacente a $\{z_8, z_{10}\}$ elegir aleat.

$P_1 = \{z_{11}, z_{12}, z_8\}$

2º genera aleatorio entre $\{z_1, z_2, z_3, z_4, z_5, z_6, z_7, z_9, z_{10}\}$

$P_2 = \{z_1\}$ $\rightarrow z_1$ es adyacente $\{z_2, z_3, z_4\}$ elegir aleatorio

$P_2 = \{z_1, z_3\}$ $\rightarrow z_3$ es adyacente a $\{z_2, z_4, z_5, z_7\}$ elegir aleatorio

$P_2 = \{z_1, z_3, z_5\}$

3° gera aleatorio entre $\{z_2, z_4, \underline{z_6}, \underline{z_7}, z_9, \underline{z_{10}}\}$

(2)

$P_3 = \{z_7\} \rightarrow z_7$ es adyacente a $\{z_4, z_6\}$ elegir aleat.

$P_3 = \{z_7, z_6\} \rightarrow z_6$ es adyacente a $\{z_9, z_{10}\}$ elegir aleatorio

$P_3 = \{z_7, z_6, z_{10}\}$

4° gera aleatorio entre $\{z_2, z_4, z_9\}$

$P_4 = \{z_4\} \rightarrow z_4$ es adyacente $\{\}$ $\Rightarrow P_4 = \{\}$

\Rightarrow solución $\bar{P}_1 = \{(\underline{z_{11}}, \underline{z_{12}}, z_8), (z_1, z_3, z_5), (z_7, z_6, z_{10}), \overline{(z_2, z_4, z_9)}\}$
 $38 + 45 + 28 = 111 \downarrow$

$F(\bar{P}_1) = 111$

genera solución:

1° gera aleatorio entre $\{z_1, \dots, z_{12}\}$

$P_1 = \{z_7\} \rightarrow z_7$ es adyacente a $\{z_3, z_4, z_6, z_8\}$ elige aleat

$P_1 = \{z_7, z_4\} \rightarrow z_4$ es adyacente a $\{z_1, z_3, z_8\}$ elige aleatorio

$P_1 = \{z_7, z_4, z_3\}$

2° gera aleatorio $\{z_1, z_2, z_5, z_6, z_8, z_9, z_{10}, z_{11}, z_{12}\}$

$P_2 = \{z_{11}\} \rightarrow z_{11}$ es adyacente a $\{z_{10}, z_{12}\}$ elige aleat.

$P_2 = \{z_{11}, z_{12}\} \rightarrow z_{12}$ es adyacente a $\{z_{10}, z_8\}$ elige aleat.

$P_2 = \{z_{11}, z_{12}, z_8\}$

3° gera aleatorio entre $\{z_1, z_2, z_5, z_6, z_9, z_{10}\}$

$P_3 = \{z_2\} \rightarrow z_2$ es adyacente a $\{z_1, z_5\}$ elige aleat.

$P_3 = \{z_2, z_5\} \rightarrow z_5$ es adyacente a $\{z_2, z_6, z_9\}$ elige

$P_3 = \{z_2, z_5, z_9\}$

rotación ...

$10 \rightarrow z_{10}$ es adyacente a 1 ...

$10, z_6 \rightarrow z_6$ es adyacente a 1

$$\{(z_7, z_4, z_3), (z_{11}, z_{12}, z_8), (z_2, z_5, z_9), \overline{(z_1, z_6, z_{10})}\}$$

$$\underbrace{\quad}_{26} + \underbrace{\quad}_{38} + \underbrace{\quad}_{37} = 101$$

$$\underline{F(\bar{P}_2) = 101}$$

ión de dos puntos

$$\bar{P}_3 = \{(z_7, z_4, z_3), (z_{11}, z_6, z_8), (z_2, z_5, z_9), \overline{(z_1, z_{12}, z_{10})}\}$$

$$\underbrace{\quad}_{26} + \underbrace{\quad}_0 + \underbrace{\quad}_{37} \quad \quad \quad 0 = 63$$

$$\underline{F(\bar{P}_3) = 63}$$

uzamiento :

$$\bar{P}_2 = \{(z_7, z_4, z_3), (z_{11}, z_{12}, z_8), (z_2, z_5, z_9), \overline{(z_1, z_6, z_{10})}\}$$

$$\bar{P}_1 = \{(z_{11}, z_{12}, z_8), (z_1, z_3, z_5), (z_7, z_6, z_{10}), \overline{(z_2, z_4, z_9)}\}$$

$$\uparrow \quad \uparrow$$

$$\Rightarrow \bar{P}_4 = \{(\overline{(z_7, z_4, z_5)}), (z_{11}, z_{12}, z_8), (z_2, z_3, z_9), \overline{(z_1, z_6, z_{10})}\}$$

$$= \{(z_{11}, z_{12}, z_8), (z_1, z_5, z_3), (z_7, z_6, z_{10}), \overline{(z_2, z_4, z_9)}\}$$

... otros dos \Rightarrow for