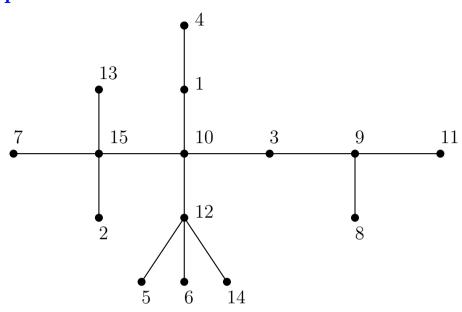
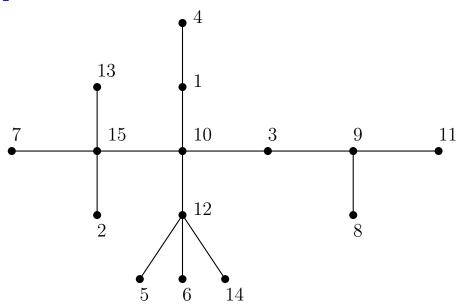
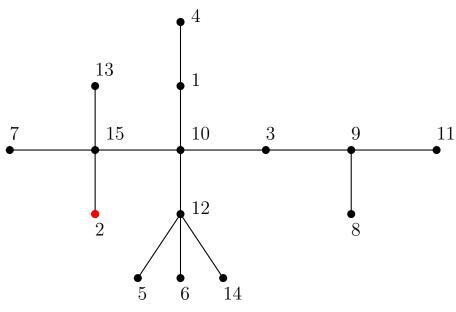
Seqüència de Prüfer d'un arbre d'un arbre d'ordre ≥ 3



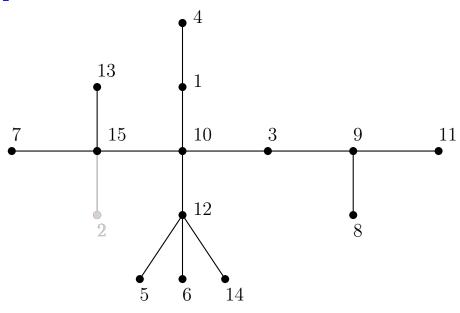


$$L = \min L =$$



$$L = \{2, 4, 5, 6, 7, 8, 11, 13, 14\}$$

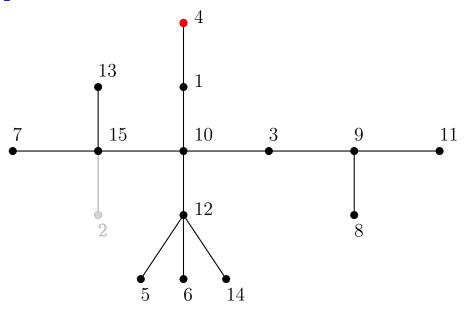
$$\min L = 2$$



$$L = \{2, 4, 5, 6, 7, 8, 11, 13, 14\}$$

$$\min L = 2$$

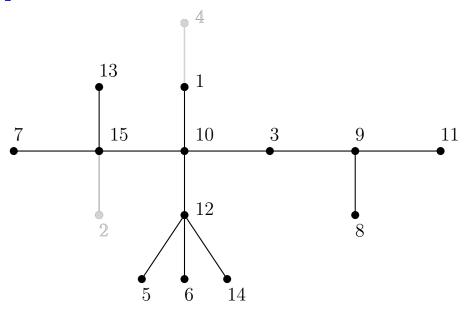




$$L = \{4, 5, 6, 7, 8, 11, 13, 14\}$$

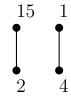
$$\min L = 4$$

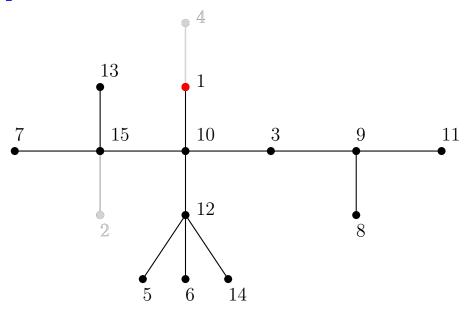




$$L = \{4, 5, 6, 7, 8, 11, 13, 14\}$$

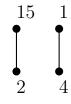
$$\min L = 4$$

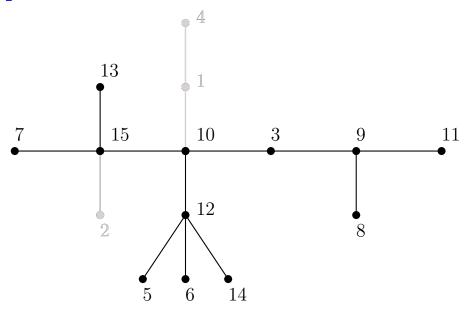




$$L = \{1, 5, 6, 7, 8, 11, 13, 14\}$$

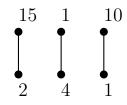
$$\min L = -1$$

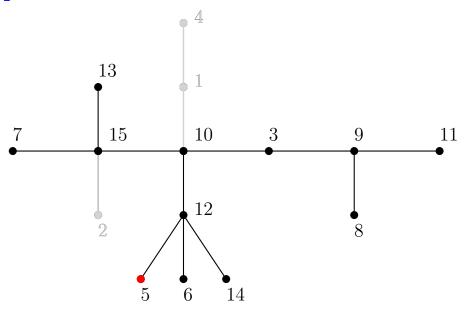




$$L = \{1, 5, 6, 7, 8, 11, 13, 14\}$$

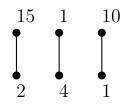
$$\min L = -1$$

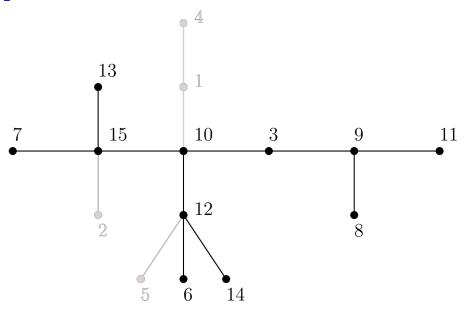




$$L = \{5, 6, 7, 8, 11, 13, 14\}$$

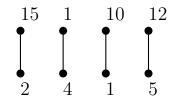
$$\min L = 5$$

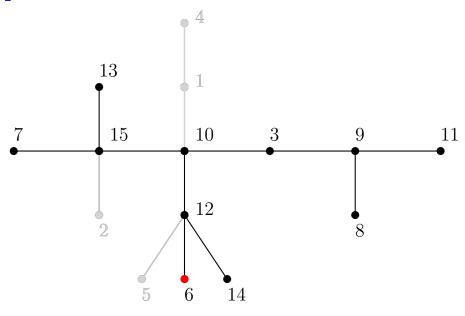




$$L = \{5, 6, 7, 8, 11, 13, 14\}$$

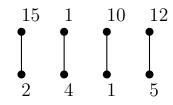
$$\min L = 5$$

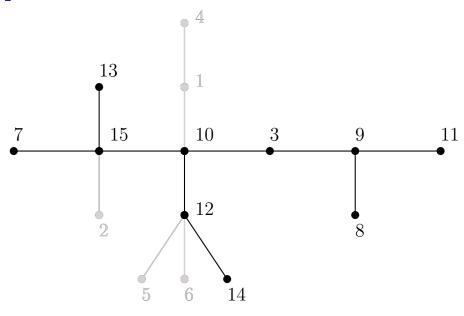




$$L = \{6, 7, 8, 11, 13, 14\}$$

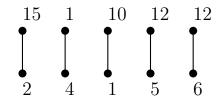
$$\min L = -6$$

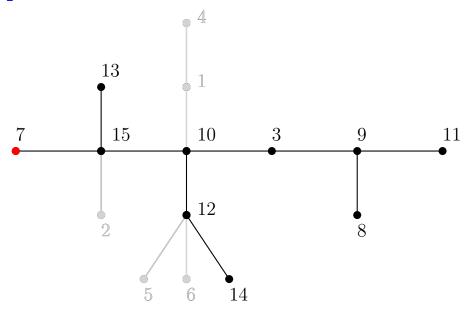




$$L = \{6, 7, 8, 11, 13, 14\}$$

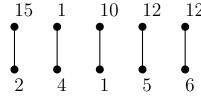
$$\min L = 6$$

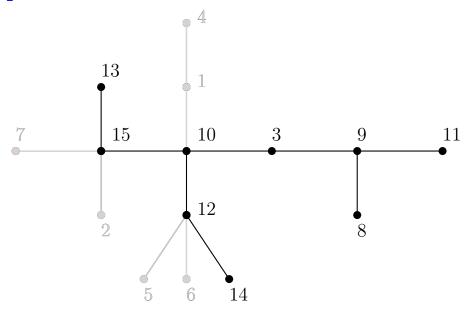




$$L = \{7, 8, 11, 13, 14\}$$

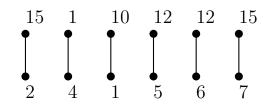
$$\min L = 7$$

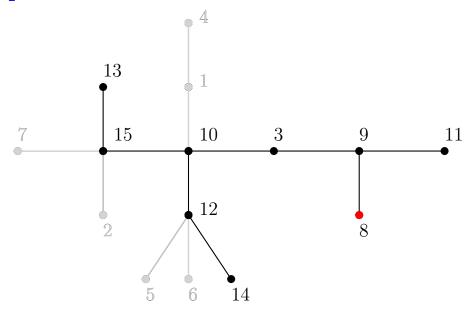




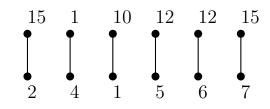
$$L = \{7, 8, 11, 13, 14\}$$

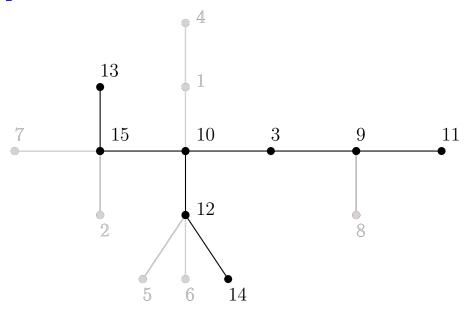
$$\min L = 7$$



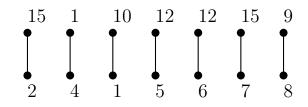


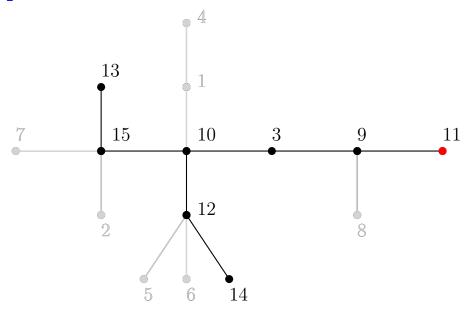
$$L = \{8, 11, 13, 14\}$$
$$\min L = 8$$





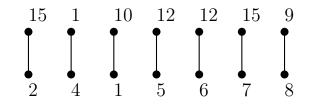
$$L = \{8, 11, 13, 14\}$$
$$\min L = 8$$

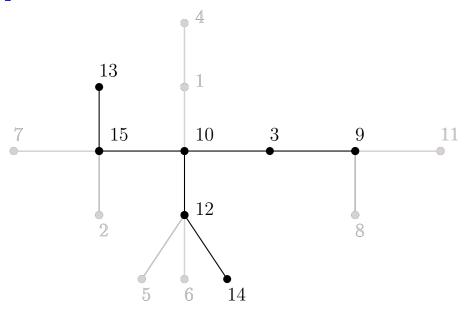




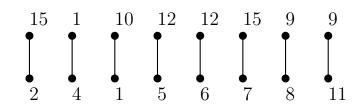
$$L = \{11, 13, 14\}$$

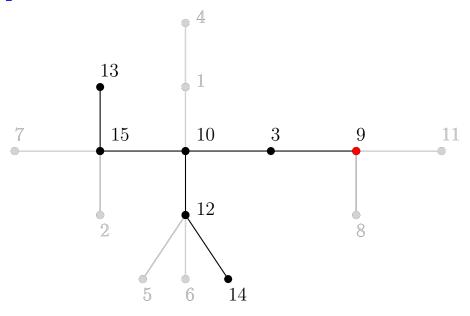
$$\min L = 11$$





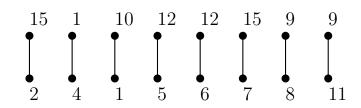
$$L = \{11, 13, 14\}$$
$$\min L = 11$$

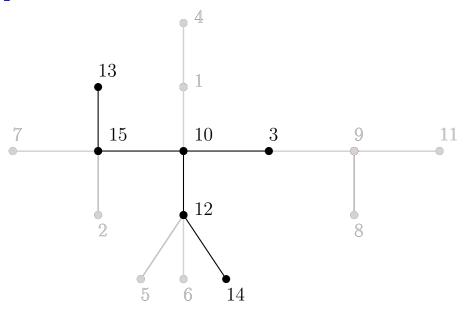




$$L = \{9, 13, 14\}$$

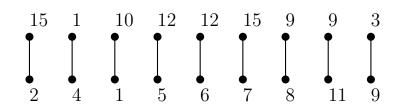
 $\min L = 9$

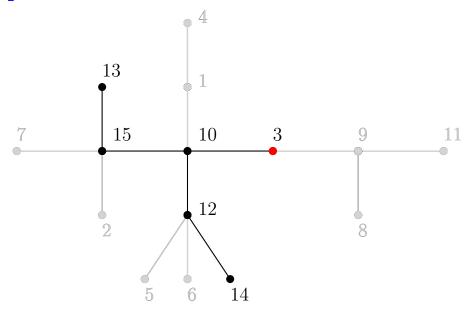




$$L = \{9, 13, 14\}$$

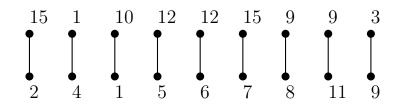
 $\min L = 9$

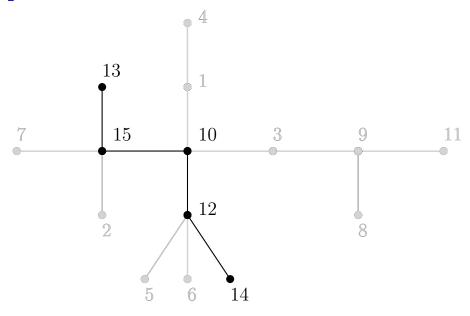




$$L = \{3, 13, 14\}$$

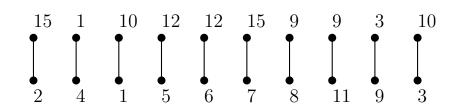
 $\min L = 3$

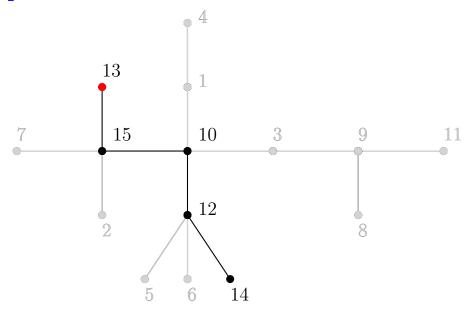




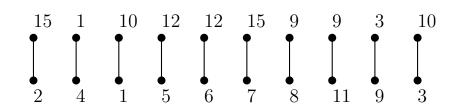
$$L = \{3, 13, 14\}$$

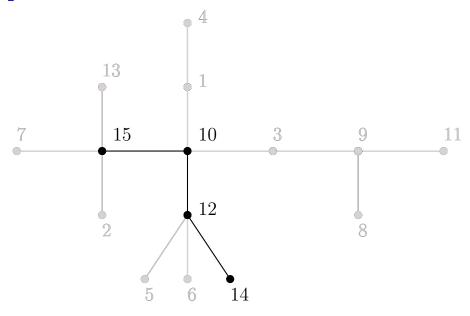
 $\min L = 3$



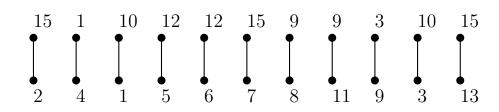


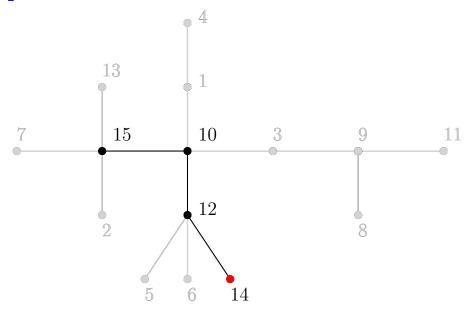
$$L = \{13, 14\}$$
$$\min L = 13$$



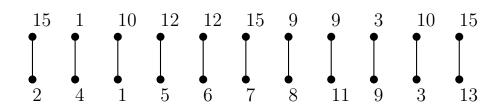


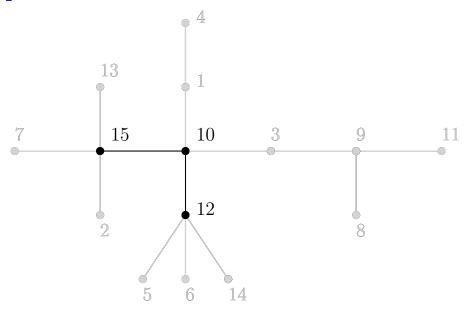
$$L = \{13, 14\}$$
$$\min L = 13$$



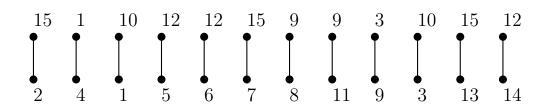


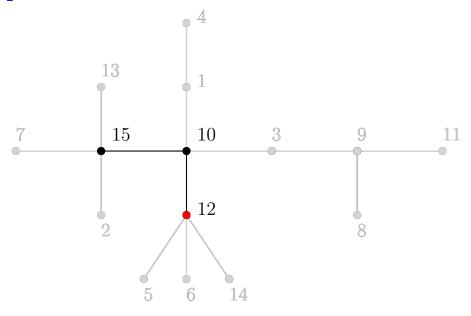
$$L = \{14, 15\}$$
$$\min L = 14$$



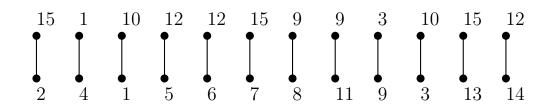


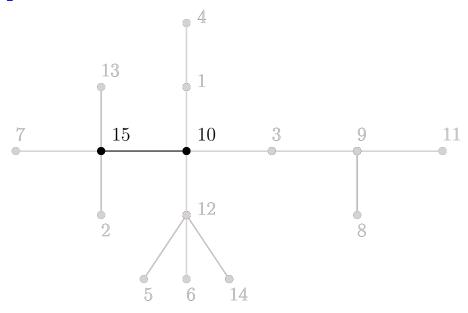
$$L = \{14, 15\}$$
$$\min L = 14$$



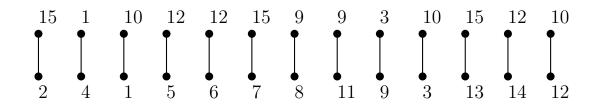


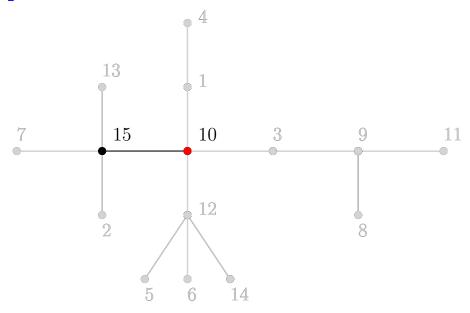
$$L = \{12, 15\}$$
$$\min L = 12$$



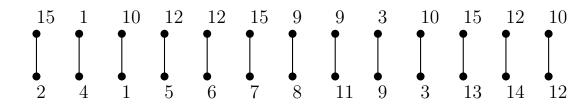


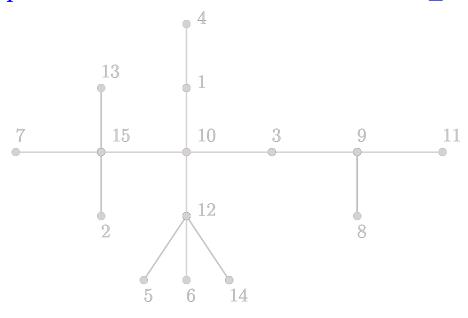
$$L = \{12, 15\}$$
$$\min L = 12$$



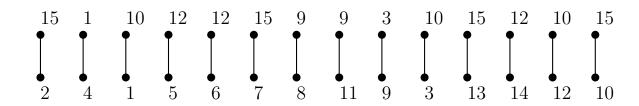


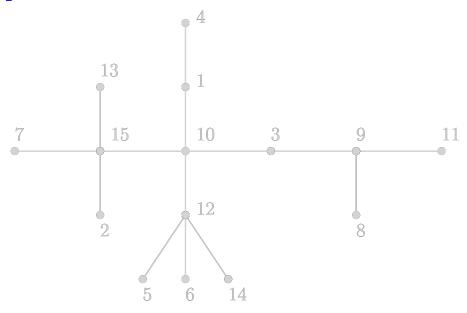
$$L = \{10, 15\}$$
$$\min L = 10$$





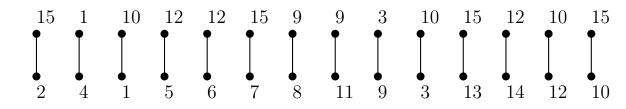
$$L = \{10, 15\}$$
$$\min L = 10$$

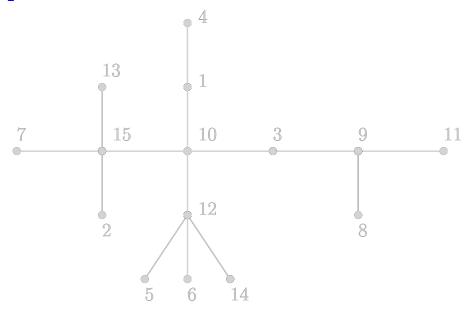




$$L = \{\}$$

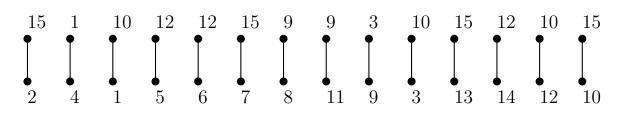
$$\min L = -$$



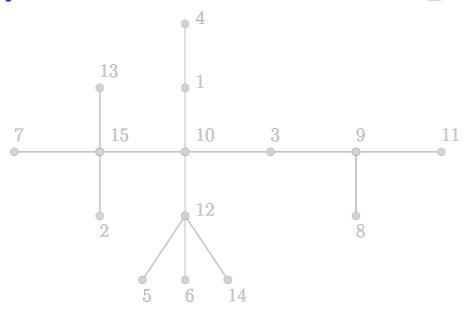


$$L = \{\}$$

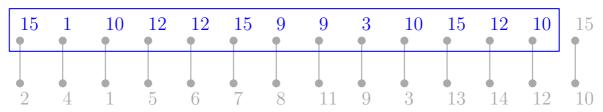
$$\min L = -$$

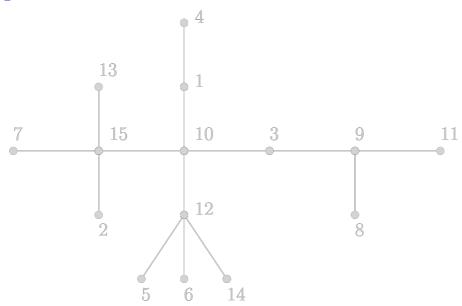


Arestes de T

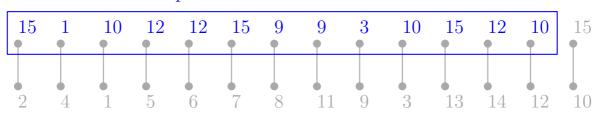


Seqüència de Prüfer

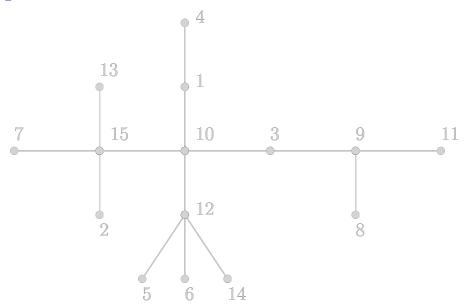




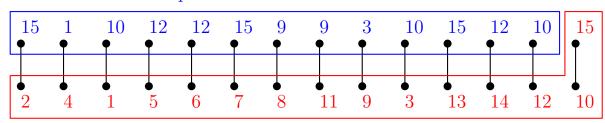
Seqüència de Prüfer



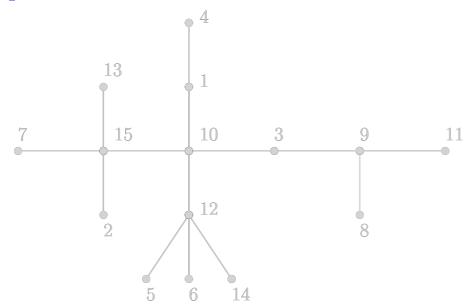
té longitud 13 (=
$$mida(T) - 1 = ord(T) - 2$$
)

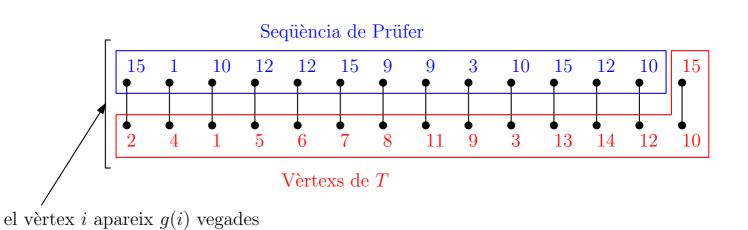


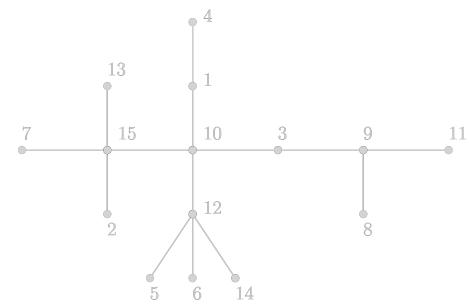
Seqüència de Prüfer



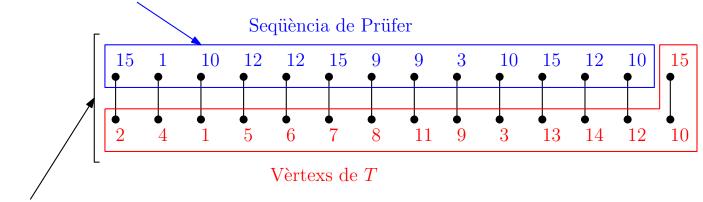
Vèrtexs de T



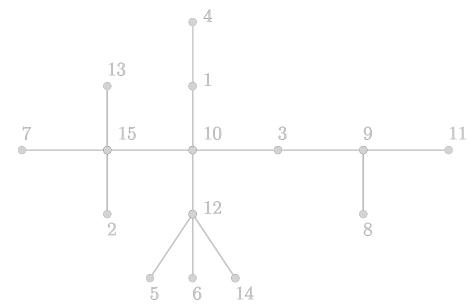




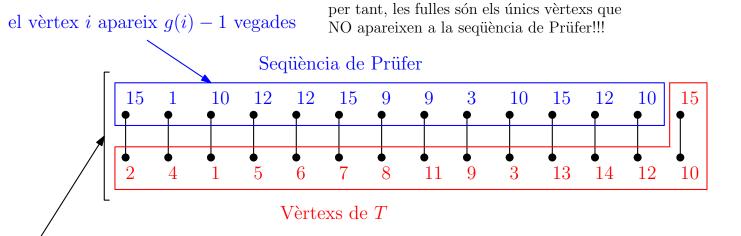




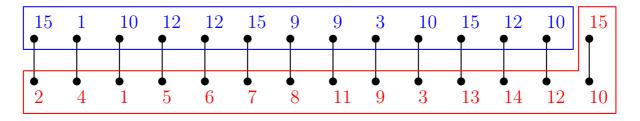
el vèrtex i apareix g(i) vegades



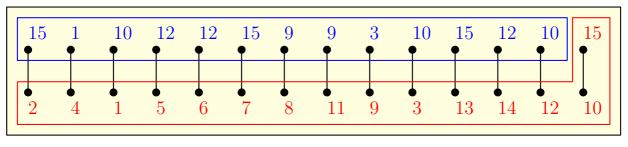
el vèrtex i apareix g(i) vegades

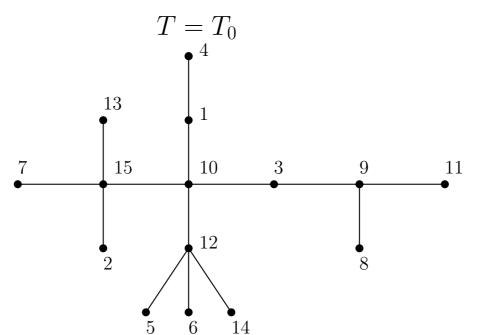


Seqüència de Prüfer

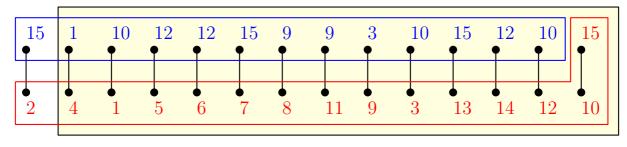


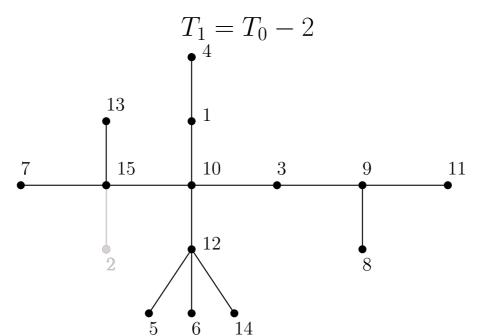
Seqüència de Prüfer



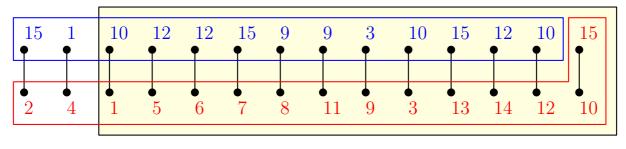


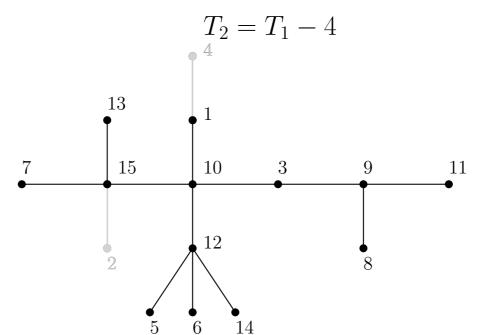
Seqüència de Prüfer



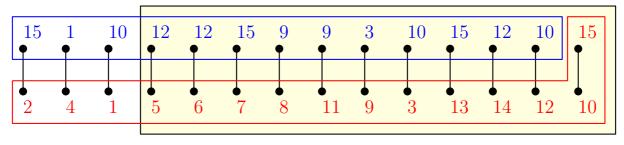


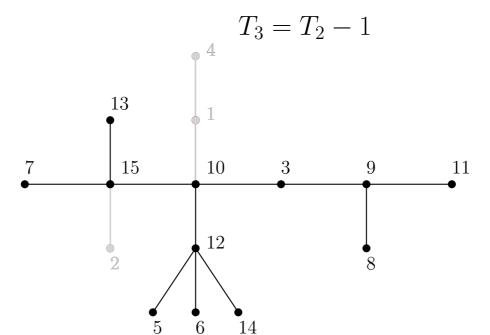
Seqüència de Prüfer



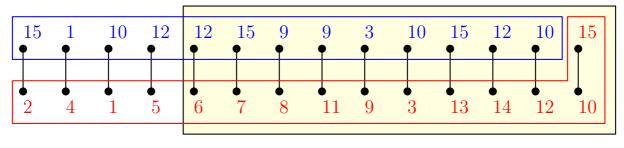


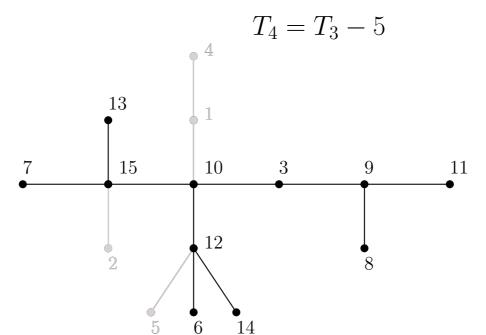
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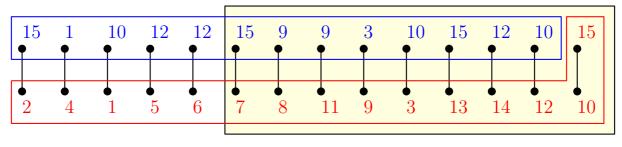


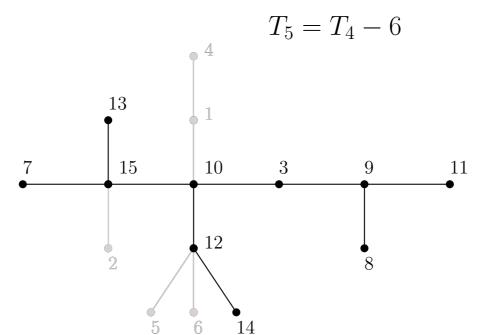
Seqüència de Prüfer



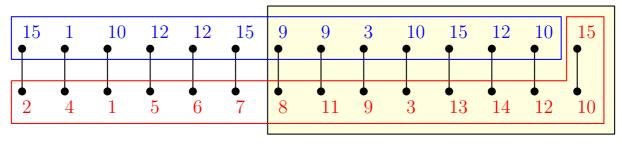


Seqüència de Prüfer

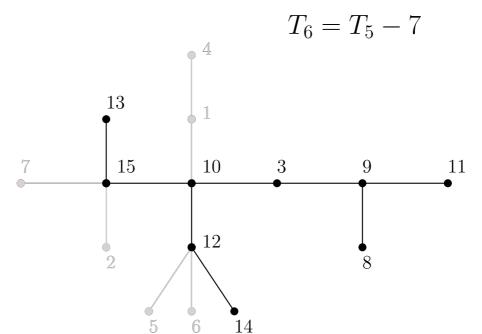




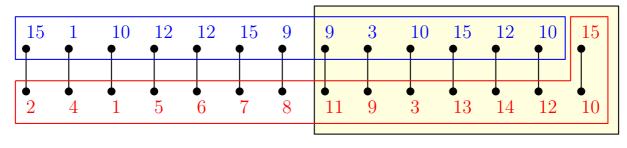
Seqüència de Prüfer



Vèrtexs de l'arbre



Seqüència de Prüfer



$$T_7 = T_6 - 8$$

13

15

10

3

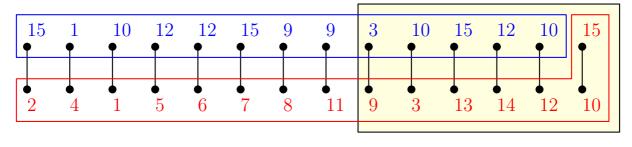
9

11

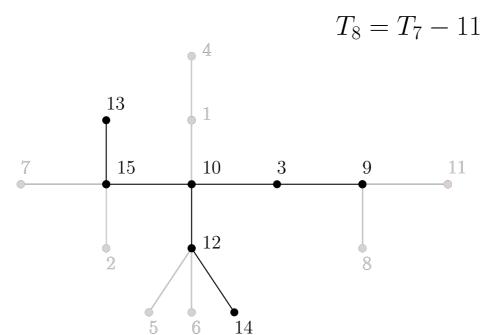
12

8

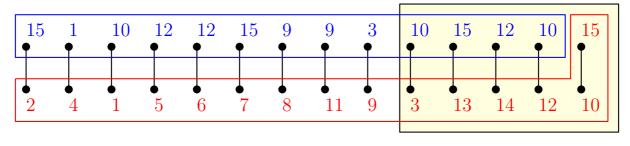
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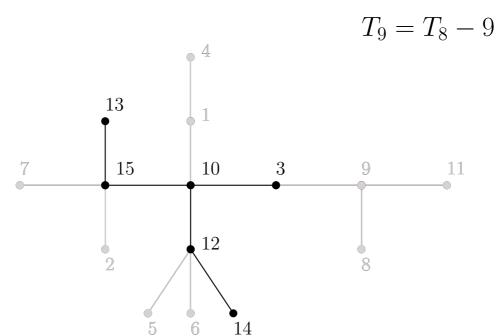


Vèrtexs de l'arbre

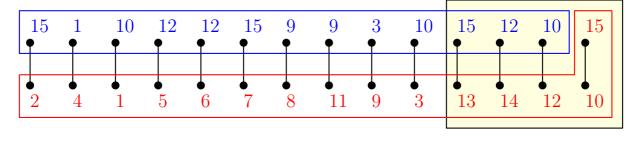


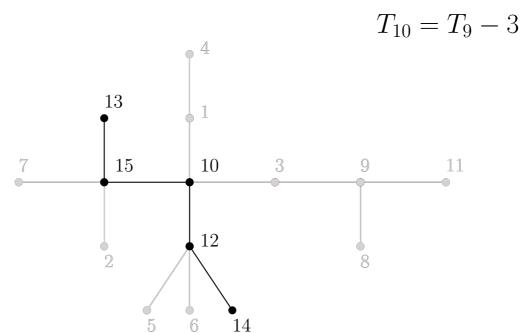
Seqüència de Prüfer



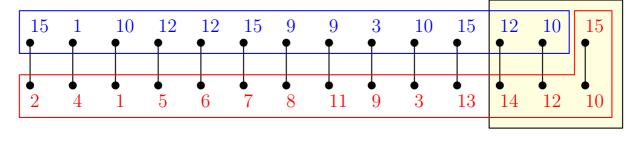


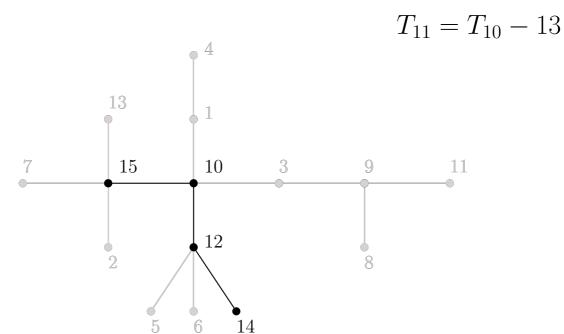
Seqüència de Prüfer



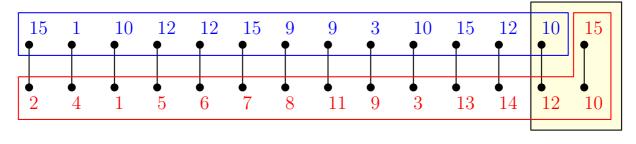


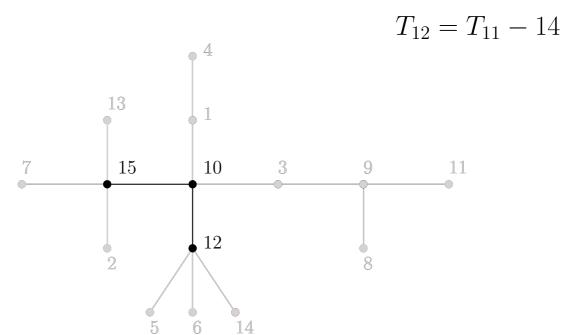
Seqüència de Prüfer



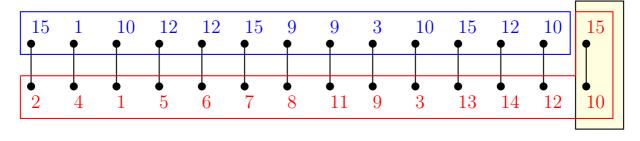


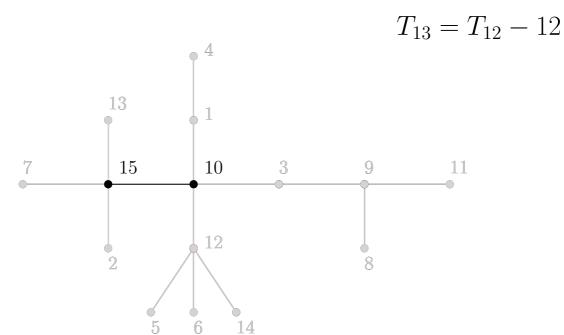
Seqüència de Prüfer





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Seqüència de Prüfer: (15, 1, 10, 12, 12, 15, 9, 9, 3, 10, 15, 12, 10)

té longitud 13, per tant és la seqüència de Prüfer d'un arbre d'ordre 15

 $S := \text{següència de Prüfer de l'arbre } T_i, i = 0, 1, 2, 3, \dots, 13$

 $V := \text{ vèrtexs de l'arbre } T_i$

 $P := \text{ vèrtexs de l'abre } T_i \text{ que apareixen a la seqüència de Prüfer}$

 $W = V \setminus P :=$ vèrtexs de l'abre T_i que NO apareixen a la seqüència de Prüfer

 $\min W$ és adjacent al primer valor de la sequència de Prüfer

$$S := (15, 1, 10, 12, 12, 15, 9, 9, 3, 10, 15, 12, 10)$$

$$V := \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 \}$$

$$P := \{\}$$

$$W = V \setminus P := \{\}$$

$$\min W := \{\}$$

$$A(T) := \{\}$$

$$T_0 \begin{tabular}{ll} $S := (15,1,10,12,12,15,9,9,3,10,15,12,10)$ \\ $V := \{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15 \,\}$ \\ $P := \{ \begin{tabular}{ll} $P := \{ \end{tabular} \begin{tabular}{ll} $P := \{ \end{tabular} \begin{tabular}{ll} $A(T) := \{ \end{tabular} \end{tabular}$$

$$T_0 \begin{tabular}{ll} $S := (15,1,10,12,12,15,9,9,3,10,15,12,10)$ \\ $V := \{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15 \,\}$ \\ $P := \{1,-3,-9,10,-12,-15 \,\}$ \\ $W = V \setminus P := \{-2,-4,5,6,7,8,-11,-13,14,-13,1$$

$$T_1 \begin{tabular}{c} S := (& 1,10,12,12,15,9,9,3,10,15,12,10) \\ V := \{1, & 3,4,5,6,7,8,9,10,11,12,13,14,15 \, \} \\ P := \{ & 1, & 3, & 9,10,&12,&15 \, \} \\ W = V \setminus P := \{ & 4,5,6,7,8,&11,&13,14,& \} \\ \min W := \begin{tabular}{c} A(T) := \{ & \begin{tabular}{c} 15 \\ 2 \\ \end{array} \end{tabular}$$

$$T_1 \qquad S := (\quad 1, 10, 12, 12, 15, 9, 9, 3, 10, 15, 12, 10)$$

$$V := \{1, \quad 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 \}$$

$$P := \{ 1, \quad 3, \qquad 9, 10, \qquad 12, \qquad 15 \}$$

$$W = V \setminus P := \{ \qquad 4, 5, 6, 7, 8, \qquad 11, \qquad 13, 14, \qquad \}$$

$$\min W := \quad 4$$

$$A(T) := \{ \begin{array}{c} 15 \\ 2 \end{array} \right.$$

$$T_{1} \qquad S := (1,10,12,12,15,9,9,3,10,15,12,10)$$

$$V := \{1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 \}$$

$$P := \{ 1, 3, 9, 10, 12, 15 \}$$

$$W = V \setminus P := \{ 4, 5, 6, 7, 8, 11, 13, 14, \}$$

$$\min W := 4$$

$$A(T) := \{ 15, 1 \}$$

$$2 = 4$$

$$T_2 \begin{array}{c} S := (& 10,12,12,15,9,9,3,10,15,12,10) \\ V := \left\{1, & 3, & 5,6,7,8,9,10,11,12,13,14,15\right\} \\ P := \left\{ & 3, & 9,10,&12,&15 \right\} \\ W = V \setminus P := \left\{ & 1, & 5,6,7,8,&11,&13,14,& \right\} \\ \min W := \\ A(T) := \left\{ \begin{array}{c} 15, & 1\\ 2, & 4 \end{array} \right. \end{array}$$

$$T_{2} \qquad S := (10, 12, 12, 15, 9, 9, 3, 10, 15, 12, 10)$$

$$V := \{1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 \}$$

$$P := \{ 3, 9, 10, 12, 15 \}$$

$$W = V \setminus P := \{ 1, 5, 6, 7, 8, 11, 13, 14, \}$$

$$\min W := 1$$

$$A(T) := \{ 15, 1 \\ 2, 4 \}$$

$$T_{2} \begin{bmatrix} S := (& 10, 12, 12, 15, 9, 9, 3, 10, 15, 12, 10) \\ V := \{1, & 3, & 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9, 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 1, & 5, 6, 7, 8, & 11, & 13, 14, & \}$$

$$\min W := & 1$$

$$A(T) := \{ \begin{pmatrix} 15 & 1 & 10 \\ 1 & 1 & 10 \\ 2 & 4 & 1 \end{pmatrix}$$

$$T_{3} \begin{bmatrix} S := (& 12,12,15,9,9,3,10,15,12,10) \\ V := \{ & 3, & 5,6,7,8,9,10,11,12,13,14,15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9,10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 5,6,7,8, & 11, & 13,14, & \}$$

$$\min W := \begin{bmatrix} 15 & 1 & 10 \\ 2 & 4 & 1 \end{bmatrix}$$

$$T_{3} \begin{bmatrix} S := (& 12, 12, 15, 9, 9, 3, 10, 15, 12, 10) \\ V := \{ & 3, & 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9, 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 5, 6, 7, 8, & 11, & 13, 14, & \}$$

$$\min W := 5$$

$$A(T) := \{ \int_{2}^{15} \int_{4}^{1} \int_{1}^{10} \int_{2}^{10} \int_{4}^{10} \int_{1}^{10} \int_{1}^{1$$

$$T_{3} \begin{bmatrix} S := (& 12, 12, 15, 9, 9, 3, 10, 15, 12, 10) \\ V := \{ & 3, & 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9, 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 5, 6, 7, 8, & 11, & 13, 14, & \}$$

$$\min W := 5$$

$$A(T) := \{ \begin{bmatrix} 15 & 1 & 10 & 12 \\ 1 & 1 & 1 & 1 \end{bmatrix}, \begin{bmatrix} 10 & 12 & 12 \\ 1 & 1 & 1 & 1 \end{bmatrix}$$

$$T_4 \qquad S := (\qquad 12,15,9,9,3,10,15,12,10)$$

$$V := \{ \qquad 3, \qquad 6,7,8,9,10,11,12,13,14,15 \}$$

$$P := \{ \qquad 3, \qquad 9,10, \qquad 12, \qquad 15 \}$$

$$W = V \setminus P := \{ \qquad 6,7,8, \qquad 11, \qquad 13,14, \qquad \}$$

$$\min W := 6$$

$$A(T) := \{ \begin{array}{c} 15, 1, 10, 12 \\ 1, 1, 1, 1, 1 \end{array} \}$$

$$T_4 \qquad S := (\qquad 12,15,9,9,3,10,15,12,10)$$

$$V := \{ \qquad 3, \qquad 6,7,8,9,10,11,12,13,14,15 \}$$

$$P := \{ \qquad 3, \qquad 9,10, \qquad 12, \qquad 15 \}$$

$$W = V \setminus P := \{ \qquad 6,7,8, \qquad 11, \qquad 13,14, \qquad \}$$

$$\min W := \qquad 6$$

$$A(T) := \{ \begin{array}{c} 15 & 1 & 10 & 12 & 12 \\ 2 & 4 & 1 & 5 & 6 \end{array}$$

$$T_{5} \begin{bmatrix} S := (& 15, 9, 9, 3, 10, 15, 12, 10) \\ V := \{ & 3, & 7, 8, 9, 10, 11, 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9, 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 7, 8, & 11, & 13, 14, & \}$$

$$\min W :=$$

$$A(T) := \{ \int_{2}^{15} \int_{4}^{1} \int_{1}^{10} \int_{5}^{12} \int_{6}^{12} \int_{6}^{1$$

$$T_{5} \begin{bmatrix} S := (& 15, 9, 9, 3, 10, 15, 12, 10) \\ V := \{ & 3, & 7, 8, 9, 10, 11, 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9, 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 7, 8, & 11, & 13, 14, & \}$$

$$\min W := 7$$

$$A(T) := \{ \int_{2}^{15} \int_{4}^{1} \int_{1}^{10} \int_{5}^{12} \int_{6}^{12} \int_{6}^$$

$$T_{5} \begin{bmatrix} S := (& 15, 9, 9, 3, 10, 15, 12, 10) \\ V := \{ & 3, & 7, 8, 9, 10, 11, 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9, 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 7, 8, & 11, & 13, 14, & \}$$

$$\min W := 7$$

$$A(T) := \{ \begin{bmatrix} 15 & 1 & 10 & 12 & 12 & 15 \\ 2 & 4 & 1 & 5 & 6 & 7 \end{bmatrix}$$

$$T_{6} \begin{tabular}{c} S := (& 9,9,3,10,15,12,10) \\ V := \{ & 3, & 8,9,10,11,12,13,14,15 \, \} \\ P := \{ & 3, & 9,10,&12,&15 \, \} \\ W = V \setminus P := \{ & 8, & 11,&13,14,& \} \\ \min W := \begin{tabular}{c} A(T) := \left\{ \begin{tabular}{c} 15 & 1 & 10 & 12 & 12 & 15 \\ 2 & 4 & 1 & 5 & 6 & 7 \end{tabular} \right. \end{tabular}$$

$$T_{6} \begin{tabular}{c} S := (& 9,9,3,10,15,12,10) \\ V := \{ & 3, & 8,9,10,11,12,13,14,15 \, \} \\ P := \{ & 3, & 9,10,&12,&15 \, \} \\ W = V \setminus P := \{ & 8, & 11,&13,14, \, \} \\ \min W := & 8 \\ A(T) := \left\{ \begin{array}{c} 15 & 1 & 10 & 12 & 12 & 15 \\ 2 & 4 & 1 & 5 & 6 & 7 \end{array} \right.$$

$$T_{6} \begin{tabular}{c} S := (& 9,9,3,10,15,12,10) \\ V := \{ & 3, & 8,9,10,11,12,13,14,15 \, \} \\ P := \{ & 3, & 9,10,&12,&15 \, \} \\ W = V \setminus P := \{ & 8, & 11,&13,14, \, \} \\ \min W := & 8 \\ A(T) := \left\{ \begin{array}{c} 15 & 1 & 10 & 12 & 12 & 15 & 9 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 \end{array} \right.$$

$$T_{7} \begin{bmatrix} S := (& 9, 3, 10, 15, 12, 10) \\ V := \{ & 3, & 9, 10, 11, 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9, 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 11, & 13, 14, & \}$$

$$\min W := \begin{bmatrix} 15 & 1 & 10 & 12 & 12 & 15 & 9 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 \end{bmatrix}$$

$$T_{7} \begin{bmatrix} S := (& 9, 3, 10, 15, 12, 10) \\ V := \{ & 3, & 9, 10, 11, 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 9, 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 11, & 13, 14, & \}$$

$$\min W := & 11$$

$$A(T) := \{ \begin{bmatrix} 15 & 1 & 10 & 12 & 12 & 15 & 9 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 \end{bmatrix}$$

$$T_{8} \begin{bmatrix} S := (& 3, 10, 15, 12, 10) \\ V := \{ & 3, & 9, 10, & 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 10, & 12, & 13, 14, 15 \} \}$$

$$W = V \setminus P := \{ & 9, & 13, 14, & \}$$

$$\min W := 9$$

$$A(T) := \{ \begin{bmatrix} 15 & 1 & 10 & 12 & 12 & 15 & 9 & 9 \\ 1 & 1 & 1 & 1 & 10 & 12 & 12 & 15 & 9 & 9 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 & 11 \end{bmatrix}$$

$$T_{8} \begin{bmatrix} S := (& 3, 10, 15, 12, 10) \\ V := \{ & 3, & 9, 10, & 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 3, & 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 9, & 13, 14, & \}$$

$$\min W := 9$$

$$A(T) := \{ \int_{2}^{15} \int_{4}^{1} \int_{1}^{10} \int_{5}^{12} \int_{6}^{12} \int_{7}^{15} \int_{8}^{9} \int_{11}^{9} \int_{9}^{9} \int_{1}^{3} \int_{1}^{3} \int_{1}^{10} \int_{12}^{12} \int_{15}^{15} \int_{9}^{9} \int_{11}^{9} \int_{11$$

$$T_{9} \begin{tabular}{c}{c} S := (& 10, 15, 12, 10) \\ V := \{ & 3, & 10, & 12, 13, 14, 15 \} \\ P := \{ & 10, & 12, & 15 \} \\ W = V \setminus P := \{ & 3, & 13, 14, & \} \\ \min W := & 3 \\ A(T) := \left\{ \begin{tabular}{c} 15 & 1 & 10 & 12 & 12 & 15 & 9 & 9 & 3 & 10 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 & 11 & 9 & 3 \\ \end{tabular} \right. \begin{tabular}{c} 3 \\ 10, & 12, & 13, & 14, & 15 \\ 13, & 14, & 1$$

$$T_{10} \begin{bmatrix} S := (& 15, 12, 10) \\ V := \{ & 10, & 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 13, 14, & \}$$

$$\min W := \begin{bmatrix} 15 & 1 & 10 & 12 & 12 & 15 & 9 & 9 & 3 & 10 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 & 11 & 9 & 3 \end{bmatrix}$$

$$T_{10} \begin{bmatrix} S := (& 15, 12, 10) \\ V := \{ & 10, & 12, 13, 14, 15 \} \end{bmatrix}$$

$$P := \{ & 10, & 12, & 15 \}$$

$$W = V \setminus P := \{ & 13, 14, & \}$$

$$\min W := 13$$

$$A(T) := \{ \begin{bmatrix} 15 & 1 & 10 & 12 & 12 & 15 & 9 & 9 & 3 & 10 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 & 11 & 9 & 3 \end{bmatrix}$$

$$T_{11} \begin{bmatrix} S := (& 12,10) \\ V := \{ & 10, & 12, & 14, 15 \} \end{bmatrix}$$

$$P := \{ & 10, & 12, & \}$$

$$W = V \setminus P := \{ & 14, 15 \}$$

$$\min W := 14$$

$$A(T) := \{ \begin{bmatrix} 15 & 1 & 10 & 12 & 12 & 15 & 9 & 9 & 3 & 10 & 15 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 & 11 & 9 & 3 & 13 \end{bmatrix}$$

$$T_{13} \begin{bmatrix} S := (& & & & \\ V := \{ & & 10, & & 15 \} \end{bmatrix}$$

$$P := \{ & & & \\ W = V \setminus P := \{ & & 10, & & 15 \} \}$$

$$\min W := \begin{bmatrix} 15 & 1 & 10 & 12 & 12 & 15 & 9 & 9 & 3 & 10 & 15 & 12 & 10 \\ 2 & 4 & 1 & 5 & 6 & 7 & 8 & 11 & 9 & 3 & 13 & 14 & 12 \end{bmatrix}$$

