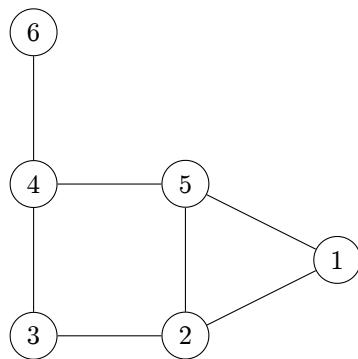


Практика 7 ДМ



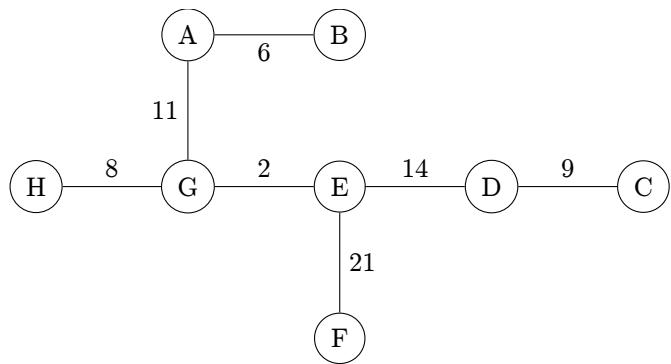
Матрица смежности $A = \begin{pmatrix} 0 & 1 & 0 & 0 & 1 & 0 \\ 1 & 0 & 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 1 & 1 \\ 1 & 1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 \end{pmatrix}$

Матрицы степеней вершин $D = \begin{pmatrix} 2 & 0 & 0 & 0 & 0 & 0 \\ 0 & 3 & 0 & 0 & 0 & 0 \\ 0 & 0 & 2 & 0 & 0 & 0 \\ 0 & 0 & 0 & 3 & 0 & 0 \\ 0 & 0 & 0 & 0 & 3 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 \end{pmatrix}$

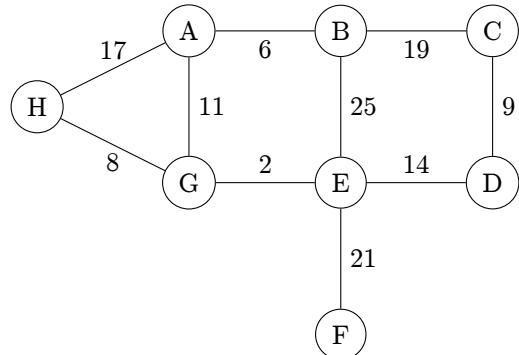
$K = D \cdot A = \begin{pmatrix} 2 & -1 & 0 & 0 & -1 & 0 \\ -1 & 3 & -1 & 0 & -1 & 0 \\ 0 & -1 & 2 & -1 & 0 & 0 \\ 0 & 0 & -1 & 3 & -1 & -1 \\ -1 & -1 & 0 & -1 & 3 & 0 \\ 0 & 0 & 0 & -1 & 0 & 0 \end{pmatrix}$

$$K_{ij} = (-1)^{i+j} \cdot \begin{pmatrix} 3 & -1 & 0 & -1 & 0 \\ -1 & 2 & 1 & 0 & 0 \\ 0 & -1 & 3 & -1 & -1 \\ -1 & 0 & -1 & 3 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix} = \begin{pmatrix} 3 & -1 & -1 & 0 & 0 \\ -1 & 2 & 0 & 0 & 0 \\ 0 & -1 & -1 & -1 & 0 \\ -1 & 0 & 3 & 0 & 0 \end{pmatrix} =$$

$$= \begin{pmatrix} -1 & -1 & 0 \\ -1 & -1 & -1 \\ 0 & 3 & 0 \end{pmatrix} + 2 \cdot \begin{pmatrix} 3 & -1 & 0 \\ 0 & -1 & 0 \\ -1 & 3 & 0 \end{pmatrix} = -3 + 2 \cdot (-1 + 9) = 13$$



$\{\{A\}, \{B\}, \dots\}$



EG GH GA AB ED DC EF

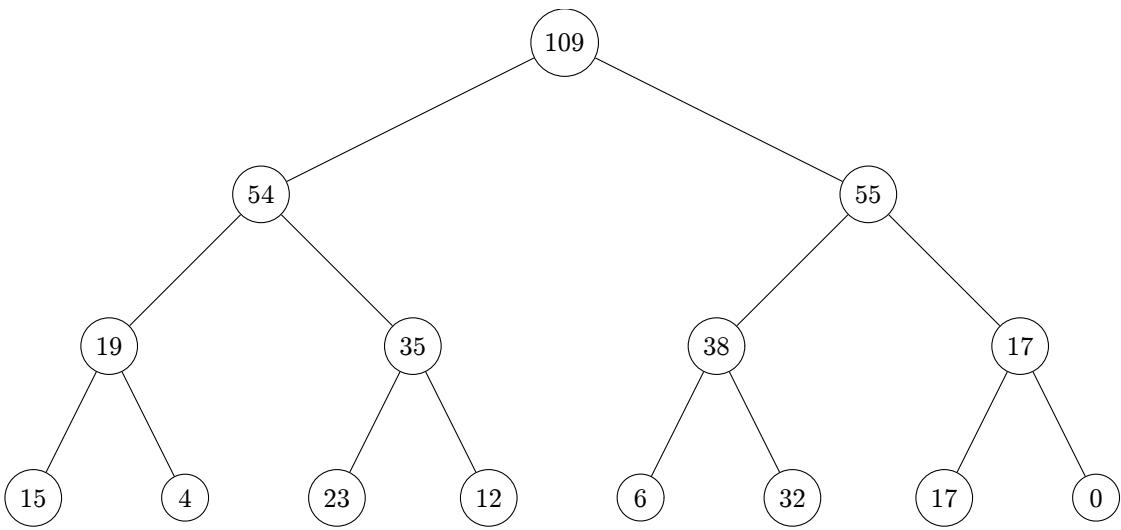
$$\begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 1 & 4 & -1 & -1 & -1 & -1 \\ 2 & -1 & 4 & -1 & -1 & -1 \\ 3 & -1 & -1 & 4 & -1 & -1 \\ 4 & -1 & -1 & -1 & 4 & -1 \\ 5 & -1 & -1 & -1 & -1 & 4 \end{pmatrix}$$

$$\begin{pmatrix} 4 & -1 & -1 & -1 \\ -1 & 4 & -1 & -1 \\ -1 & -1 & 4 & -1 \\ -1 & -1 & -1 & 4 \end{pmatrix} = \begin{pmatrix} 4 & -1 & -1 & -1 \\ -5 & 5 & 0 & 0 \\ -1 & -1 & 4 & -1 \\ -1 & -1 & -1 & 4 \end{pmatrix} = \begin{pmatrix} 3 & -1 & -1 & -1 \\ 0 & 5 & 0 & 0 \\ -2 & -1 & 4 & -1 \\ -2 & -1 & -1 & 4 \end{pmatrix} =$$

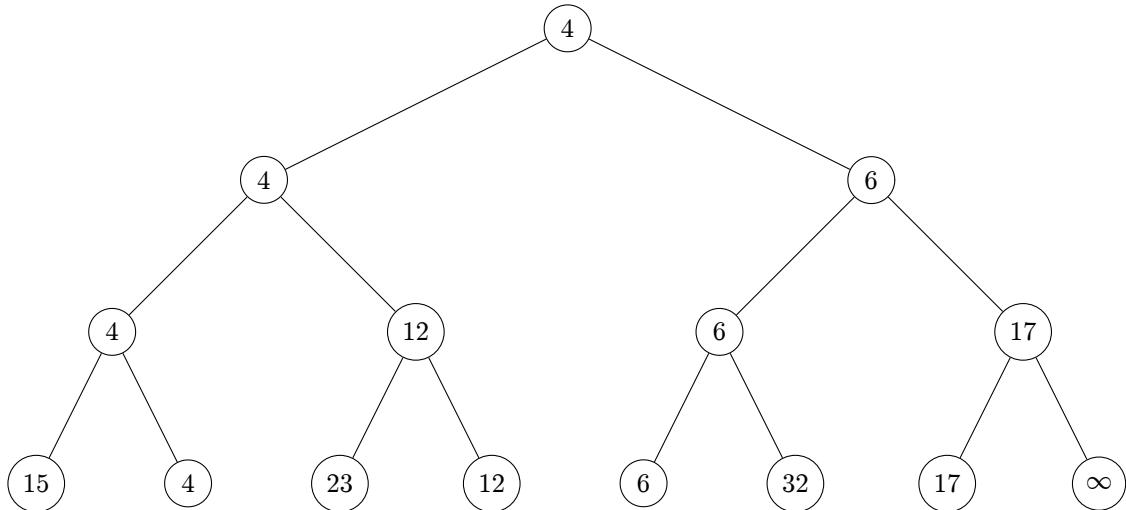
$$= 5 \cdot \begin{pmatrix} 3 & -1 & -1 \\ -2 & 4 & -1 \\ -2 & -1 & 4 \end{pmatrix} = 5 \cdot \begin{pmatrix} 3 & -1 & -1 \\ -5 & 5 & 0 \\ -2 & -1 & 4 \end{pmatrix} = 5 \cdot \begin{pmatrix} 2 & -1 & -1 \\ 0 & 5 & 0 \\ -3 & -1 & 4 \end{pmatrix} = 25 \cdot \begin{pmatrix} 2 & -1 \\ -3 & 4 \end{pmatrix} = 125$$

15 4 23 12 6 32 17

Сумма:



Минимум:



Максимум

