

РГЗ1

В-5

ЛР-122 Гергеневков Дарин А.

$$5) \quad A = \begin{vmatrix} 1 & -1 & -1 & 1 \\ -1 & 2 & 0 & 0 \\ 0 & -1 & 4 & 4 \\ 1 & 1 & -1 & -15 \end{vmatrix} \quad \begin{matrix} a_2 + a_1 \\ a_3 + a_1 \\ a_4 - a_1 \end{matrix} \quad \begin{vmatrix} 1 & 0 & -1 & 1 \\ -1 & 1 & 0 & 0 \\ 0 & -1 & 4 & 4 \\ 1 & 2 & -1 & -15 \end{vmatrix} \quad \begin{matrix} a_3 + a_1 \\ a_4 - a_1 \end{matrix} \quad \begin{vmatrix} 1 & 0 & 0 & 1 \\ -1 & 1 & -1 & 0 \\ 0 & -1 & 4 & 4 \\ 1 & 2 & 0 & -15 \end{vmatrix} \quad \begin{matrix} a_4 - a_1 \end{matrix} \quad \begin{vmatrix} 1 & 0 & 0 & 0 \\ -1 & 1 & -1 & 1 \\ 0 & -1 & 4 & 4 \\ 1 & 2 & 0 & -16 \end{vmatrix}$$

$$\det(A) = a_{11} \cdot A_{11} + a_{12} \cdot A_{12} + a_{13} \cdot A_{13} + a_{14} \cdot A_{14} =$$

$$= 1 \cdot (-1)^2 \begin{vmatrix} 2 & 0 & 1 \\ -1 & 4 & 4 \\ 2 & 0 & -16 \end{vmatrix} + 0 + 0 + 0 = -64 + (-8) + 0 - (8 + 0 - 16) =$$

$$= -64 - 8 - 8 + 16 = -64$$

Ответ: - 64

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