

④ 3) transpose of cofactor matrix:

$$C = \begin{pmatrix} 2 & -4 & -2 \\ 0 & 2 & 1 \\ 0 & 0 & 1 \end{pmatrix} \rightarrow C' = \begin{pmatrix} 2 & 0 & 0 \\ -4 & 2 & 0 \\ -2 & 1 & 1 \end{pmatrix}$$

$$\frac{1}{\det A} \cdot C' = \left(\frac{1}{2}\right) C' = \boxed{\begin{pmatrix} 1 & 0 & 0 \\ -2 & 1 & 0 \\ -1 & 1/2 & 1/2 \end{pmatrix}} = (A^{-1})$$

$$A^{-1} = \frac{1}{\det A} \cdot C'$$