

$$A = \begin{bmatrix} 2 & 3 & -2 \\ -1 & -4 & 3 \\ 4 & 3 & 2 \end{bmatrix} \text{ จงหา } \text{adj}(A) \text{ และ } A^{-1}$$

หา $\det(A)$

$$\det(A) = \begin{vmatrix} 2 & 3 & -2 \\ -1 & -4 & 3 \\ 4 & 3 & 2 \end{vmatrix} \begin{matrix} ___ \\ ___ \\ ___ \end{matrix} = ___ - ___ = ___$$

หา $\text{adj}(A)$

$$\text{จาก } \text{adj}(A) = \begin{bmatrix} ___ & ___ & ___ \\ ___ & ___ & ___ \\ ___ & ___ & ___ \end{bmatrix}^t$$

หาโคแฟกเตอร์

$$C_{11} = (-1)^{1+1} (___) = ___$$

$$C_{12} = (-1)^{1+2} (___) = ___$$

$$C_{13} = (-1)^{1+3} (___) = ___$$

$$C_{21} = (-1)^{2+1} (___) = ___$$

$$C_{22} = (-1)^{2+2} (___) = ___$$

$$C_{23} = (-1)^{2+3} (___) = ___$$

$$C_{31} = (-1)^{3+1} (___) = ___$$

$$C_{32} = (-1)^{3+2} (___) = ___$$

$$C_{33} = (-1)^{3+3} (___) = ___$$

$$\text{จะได้ } \text{cof}(A) = \begin{bmatrix} ___ & ___ & ___ \\ ___ & ___ & ___ \\ ___ & ___ & ___ \end{bmatrix}$$

$$\text{ดังนั้น } \text{adj}(A) = (\text{cof}(A))^t = \begin{bmatrix} ___ & ___ & ___ \\ ___ & ___ & ___ \\ ___ & ___ & ___ \end{bmatrix}$$

$$\text{จาก } A^{-1} = \frac{1}{\det(A)} \text{adj}(A)$$

$$\text{จะได้ } A^{-1} = \frac{1}{___} \begin{bmatrix} ___ & ___ & ___ \\ ___ & ___ & ___ \\ ___ & ___ & ___ \end{bmatrix}$$