

4,

$$a = \begin{bmatrix} 1 & 3 & 2 \\ 2 & 3 & 1 \\ 1 & 2 & -1 \end{bmatrix}$$

↓

$$^1 \begin{bmatrix} 3 & 1 \\ 2 & -1 \end{bmatrix}$$

↓

$$3 \times -1 = -3$$

$$1 \times 2 = 2$$

$$= 1(-3-2)$$

$$^3 \begin{bmatrix} 2 & 1 \\ 1 & -1 \end{bmatrix}$$

↓

$$2 \times -1 = -2$$

$$1 \times 1 = 1$$

$$= 3(-2-1)$$

$$^2 \begin{bmatrix} 2 & 3 \\ 1 & 2 \end{bmatrix}$$

↓

$$2 \times 2 = 4$$

$$3 \times 1 = 3$$

$$= 2(4-3)$$

$$\rightarrow -5 - 9 - 2$$

↓

$$4 - 2 =$$

$$\underline{2}$$