

$$\textcircled{1} \quad A = \begin{vmatrix} 1 & 0 & 0 \\ 0 & 1 & 1 \\ 0 & -1 & 1 \end{vmatrix} = 1 + 0 + 0 - 0 + 1 - 0$$

2

$$B = \begin{vmatrix} 1 & 0 & 0 & 3 \\ 2 & 1 & -1 & 4 \\ 0 & 0 & 0 & 3 \\ 0 & 1 & 1 & 4 \end{vmatrix} = 0 + 0 + 0 + 3 \cdot \det$$

⇓

$$\begin{vmatrix} 1 & 0 & 0 \\ 2 & 1 & -1 \\ 0 & 1 & 1 \end{vmatrix} = 1 + 0 - 0 + 1 - 0$$

2

$$\therefore 3 \cdot 2 = 6$$

$$\det B = 6$$

$$\begin{vmatrix} x^2 & x & -\frac{1}{10} \\ 7.5 & 5 & 2 \\ 10 & 4 & 2 \\ 1 & 1 & 1 \end{vmatrix} = 0$$

$x = ?$

$$\begin{vmatrix} x^2 & x & -\frac{1}{10} \\ \frac{15}{2} & 5 & 2 \\ 10 & 4 & 2 \end{vmatrix} = 10x^2 + 20x - \frac{60}{20} + 5 - 8x^2 - 15x$$

$$1 \cdot (10x^2 + 20x - \frac{60}{20}) + 5 - 8x^2 - 15x = 0$$

$$2x^2 + 5x + 2 = 0$$

$$5^2 - 4 \cdot (2) \cdot 2$$

$$25 - 16$$

9

$$\frac{-5 \pm 3}{4}$$

$$\frac{1}{2}$$

$$x = -2; x = \frac{1}{2}$$



$$(3) \begin{vmatrix} x & 0 & 0 & 3 \\ -1 & x & 0 & 0 \\ 0 & -1 & x & 1 \\ 0 & 0 & -1 & -2 \end{vmatrix}$$

$$x \cdot \begin{vmatrix} x & 0 & 0 \\ -1 & x & 1 \\ 0 & -1 & -2 \end{vmatrix}$$

$$\hookrightarrow -2x^2 + 0 + 0 - 0 + x - 0$$

$$x(-2x^2 + x)$$

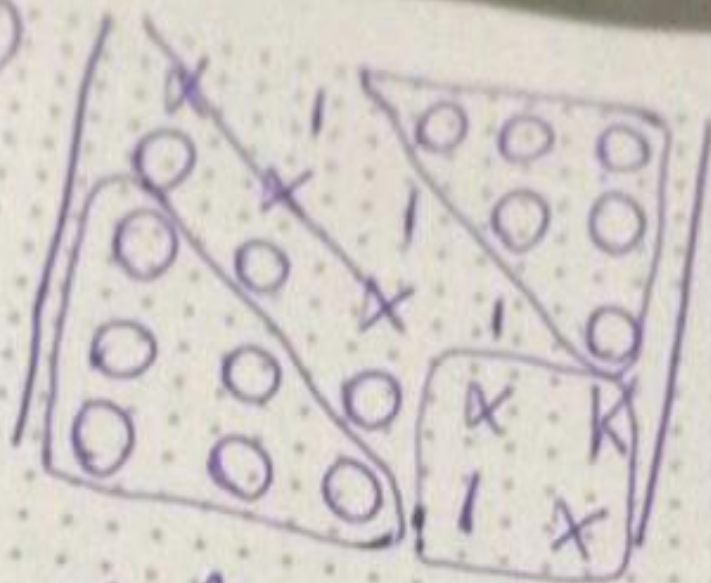
$$~~-2x^3~~ - 2x^3 + x^2$$

$$-1 \cdot \begin{vmatrix} 0 & 0 & 3 \\ -1 & x & 1 \\ 0 & -1 & -2 \end{vmatrix}$$

$$\hookrightarrow 0 + 0 + 3 - 0 - 0 + 3$$

$$\boxed{-2x^3 + x^2 + 3} \quad (A)$$

④



$$= x^3 \cdot (x^2 - K)$$

$$\therefore f(x) = x^5 - Kx^3$$

$$f(-2) = -32 + 8K = 8$$

$$8K = 40$$

$$K = 5$$

(D)