

ดีเทอร์มิแนนต์ของ 2x2 เมทริกซ์

1. ให้นักเรียนหาดีเทอร์มิแนนต์ของเมทริกซ์ต่อไปนี้

$$1) A = \begin{bmatrix} 1 & -2 & 3 \\ 0 & 4 & -5 \\ -4 & -1 & 6 \end{bmatrix}$$

$$\begin{aligned} \det(A) &= [(\quad)(\quad)(\quad) + (\quad)(\quad)(\quad) + (\quad)(\quad)(\quad)] \\ &\quad - [(\quad)(\quad)(\quad) + (\quad)(\quad)(\quad) + (\quad)(\quad)(\quad)] \\ &= [(\quad) + (\quad) + (\quad)] - [(\quad) + (\quad) + (\quad)] \\ &= (\quad) - (\quad) \\ &= \end{aligned}$$

$$2) B = \begin{bmatrix} 5 & 2 & -4 \\ 1 & 0 & -6 \\ 9 & 3 & -8 \end{bmatrix}$$

$$\begin{aligned} \det(B) &= [(\quad)(\quad)(\quad) + (\quad)(\quad)(\quad) + (\quad)(\quad)(\quad)] \\ &\quad - [(\quad)(\quad)(\quad) + (\quad)(\quad)(\quad) + (\quad)(\quad)(\quad)] \\ &= [(\quad) + (\quad) + (\quad)] - [(\quad) + (\quad) + (\quad)] \\ &= (\quad) - (\quad) \\ &= \end{aligned}$$

$$3) C = \begin{bmatrix} 12 & 0 & -7 \\ -3 & 1 & 8 \\ 5 & -1 & 2 \end{bmatrix}$$

$$\begin{aligned} \det(C) &= [(\quad)(\quad)(\quad) + (\quad)(\quad)(\quad) + (\quad)(\quad)(\quad)] \\ &\quad - [(\quad)(\quad)(\quad) + (\quad)(\quad)(\quad) + (\quad)(\quad)(\quad)] \\ &= [(\quad) + (\quad) + (\quad)] - [(\quad) + (\quad) + (\quad)] \\ &= (\quad) - (\quad) \\ &= \end{aligned}$$

$$4) D = \begin{bmatrix} -8 & 0 & 1 \\ -1 & 2 & 0 \\ -5 & 1 & 0 \end{bmatrix}$$

$$\begin{aligned} \det(D) &= [(\quad)(\quad)(\quad) + (\quad)(\quad)(\quad) + (\quad)(\quad)(\quad)] \\ &\quad - [(\quad)(\quad)(\quad) + (\quad)(\quad)(\quad) + (\quad)(\quad)(\quad)] \\ &= [(\quad) + (\quad) + (\quad)] - [(\quad) + (\quad) + (\quad)] \\ &= (\quad) - (\quad) \\ &= \end{aligned}$$