



Matrices - Find Determinant Formula (2x2)

1 Choose the correct formula for the determinant of this matrix

$$|Y| = a_{11} \cdot a_{22} - a_{12} \cdot a_{21}$$

$$Y = \begin{bmatrix} 4 & 8 \\ 8 & 0 \end{bmatrix}$$

- | | | | |
|---|-------------------------|---|-------------------------|
| A | $8 \cdot 4 + 8 \cdot 4$ | B | $8 \cdot 0 + 8 \cdot 8$ |
| C | $4 \cdot 8 - 0 \cdot 8$ | D | $0 \cdot 8 + 4 \cdot 0$ |
| E | $4 \cdot 0 + 8 \cdot 8$ | F | $4 \cdot 0 - 8 \cdot 8$ |

2 Choose the correct formula for the determinant of this matrix

$$|N| = a_{11} \cdot a_{22} - a_{12} \cdot a_{21}$$

$$N = \begin{bmatrix} 2 & 5 \\ 3 & 8 \end{bmatrix}$$

- | | | | |
|---|-------------------------|---|-------------------------|
| A | $2 \cdot 8 - 5 \cdot 3$ | B | $8 \cdot 5 + 2 \cdot 5$ |
| C | $2 \cdot 5 - 8 \cdot 3$ | D | $3 \cdot 2 + 8 \cdot 5$ |
| E | $3 \cdot 2 + 3 \cdot 8$ | F | $5 \cdot 5 + 3 \cdot 3$ |

3 Choose the correct formula for the determinant of this matrix

$$|D| = a_{11} \cdot a_{22} - a_{12} \cdot a_{21}$$

$$D = \begin{bmatrix} 2 & 5 \\ 3 & 7 \end{bmatrix}$$

- | | | | |
|---|-------------------------|---|-------------------------|
| A | $2 \cdot 7 - 5 \cdot 3$ | B | $7 \cdot 5 + 7 \cdot 3$ |
| C | $2 \cdot 5 - 7 \cdot 3$ | D | $3 \cdot 7 + 7 \cdot 3$ |
| E | $3 \cdot 5 + 5 \cdot 5$ | F | $2 \cdot 7 + 5 \cdot 3$ |

4 Choose the correct formula for the determinant of this matrix

$$|X| = a_{11} \cdot a_{22} - a_{12} \cdot a_{21}$$

$$X = \begin{bmatrix} 1 & 9 \\ 9 & 9 \end{bmatrix}$$

- | | | | |
|---|-------------------------|---|-------------------------|
| A | $9 \cdot 9 + 9 \cdot 9$ | B | $9 \cdot 9 - 9 \cdot 1$ |
| C | $1 \cdot 9 - 9 \cdot 9$ | D | $9 \cdot 9 + 9 \cdot 1$ |
| E | $1 \cdot 9 - 1 \cdot 9$ | F | $1 \cdot 9 + 9 \cdot 1$ |

5 Choose the correct formula for the determinant of this matrix

$$|Y| = a_{11} \cdot a_{22} - a_{12} \cdot a_{21}$$

$$Y = \begin{bmatrix} 1 & 8 \\ 1 & 7 \end{bmatrix}$$

- | | | | |
|---|-------------------------|---|-------------------------|
| A | $1 \cdot 1 + 8 \cdot 1$ | B | $1 \cdot 1 + 7 \cdot 8$ |
| C | $1 \cdot 8 - 1 \cdot 7$ | D | $8 \cdot 1 + 1 \cdot 1$ |
| E | $1 \cdot 7 + 8 \cdot 1$ | F | $1 \cdot 7 - 8 \cdot 1$ |

6 Choose the correct formula for the determinant of this matrix

$$|X| = a_{11} \cdot a_{22} - a_{12} \cdot a_{21}$$

$$X = \begin{bmatrix} 7 & 8 \\ 5 & 8 \end{bmatrix}$$

- | | | | |
|---|-------------------------|---|-------------------------|
| A | $5 \cdot 5 - 5 \cdot 8$ | B | $5 \cdot 8 - 8 \cdot 5$ |
| C | $8 \cdot 5 + 8 \cdot 8$ | D | $7 \cdot 7 - 8 \cdot 8$ |
| E | $7 \cdot 8 - 8 \cdot 5$ | F | $7 \cdot 7 - 5 \cdot 8$ |

7 Choose the correct formula for the determinant of this matrix

$$|M| = a_{11} \cdot a_{22} - a_{12} \cdot a_{21}$$

$$M = \begin{bmatrix} 9 & 5 \\ 4 & 7 \end{bmatrix}$$

- | | | | |
|---|-------------------------|---|-------------------------|
| A | $7 \cdot 7 + 9 \cdot 4$ | B | $9 \cdot 7 - 5 \cdot 4$ |
| C | $7 \cdot 9 - 4 \cdot 4$ | D | $5 \cdot 5 + 4 \cdot 5$ |
| E | $9 \cdot 7 + 5 \cdot 4$ | F | $7 \cdot 9 + 9 \cdot 5$ |

8 Choose the correct formula for the determinant of this matrix

$$|B| = a_{11} \cdot a_{22} - a_{12} \cdot a_{21}$$

$$B = \begin{bmatrix} 9 & 2 \\ 7 & 8 \end{bmatrix}$$

- | | | | |
|---|-------------------------|---|-------------------------|
| A | $7 \cdot 8 + 2 \cdot 2$ | B | $9 \cdot 9 + 9 \cdot 2$ |
| C | $2 \cdot 9 + 2 \cdot 8$ | D | $9 \cdot 7 - 2 \cdot 8$ |
| E | $9 \cdot 8 - 2 \cdot 7$ | F | $7 \cdot 9 - 2 \cdot 8$ |