

MATH 2E Prep: Determinants

Facts to Know:

- 2×2 determinants: $\begin{vmatrix} a & b \\ c & d \end{vmatrix} =$

- 3×3 determinants: cofactor expansion along the first row:

$$\begin{vmatrix} a & b & c \\ d & e & f \\ g & h & m \end{vmatrix} =$$

Examples:

1. Calculate $\begin{vmatrix} 1 & 4 \\ 2 & -5 \end{vmatrix}$.

2. Calculate $\begin{vmatrix} 3 & 0 & 2 \\ 1 & -3 & 4 \\ -1 & 1 & 2 \end{vmatrix}$.