

Determinants

determinant (of a square matrix) -

Determinant of a 2 x 2 Matrix:

$$\begin{vmatrix} a & b \\ c & d \end{vmatrix} =$$

Example:

1. $\begin{vmatrix} 7 & 2 \\ 2 & 3 \end{vmatrix} =$

2. $\begin{vmatrix} -3 & 5 \\ -2 & -1 \end{vmatrix} =$

Determinant of a 3 x 3 Matrix:

Method: (using Diagonals)

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

Ex 3: Find the determinant.

$$\begin{vmatrix} 4 & 3 & 1 \\ 5 & -7 & 0 \\ 1 & -2 & 2 \end{vmatrix} =$$

Determinant Smart Student Version WO Expansion by Minors

Ex 4: Find the determinant.

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