Key Takeaways

Properties of determinant

- Determinant of upper or lower triangular square matrix is equal to product of its diagonal elements .

Example:

$$A = \begin{pmatrix} a & d & e \\ 0 & b & f \\ 0 & 0 & c \end{pmatrix} \Rightarrow \begin{matrix} + \\ - \\ + \end{matrix} \begin{vmatrix} a & d & e \\ 0 & b & f \\ 0 & 0 & c \end{vmatrix} = a \begin{vmatrix} b & f \\ 0 & c \end{vmatrix} + 0 + 0$$

$$\Rightarrow |A| = abc$$

The determinant of the transpose of a square matrix is equal to the determinant of the matrix.

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