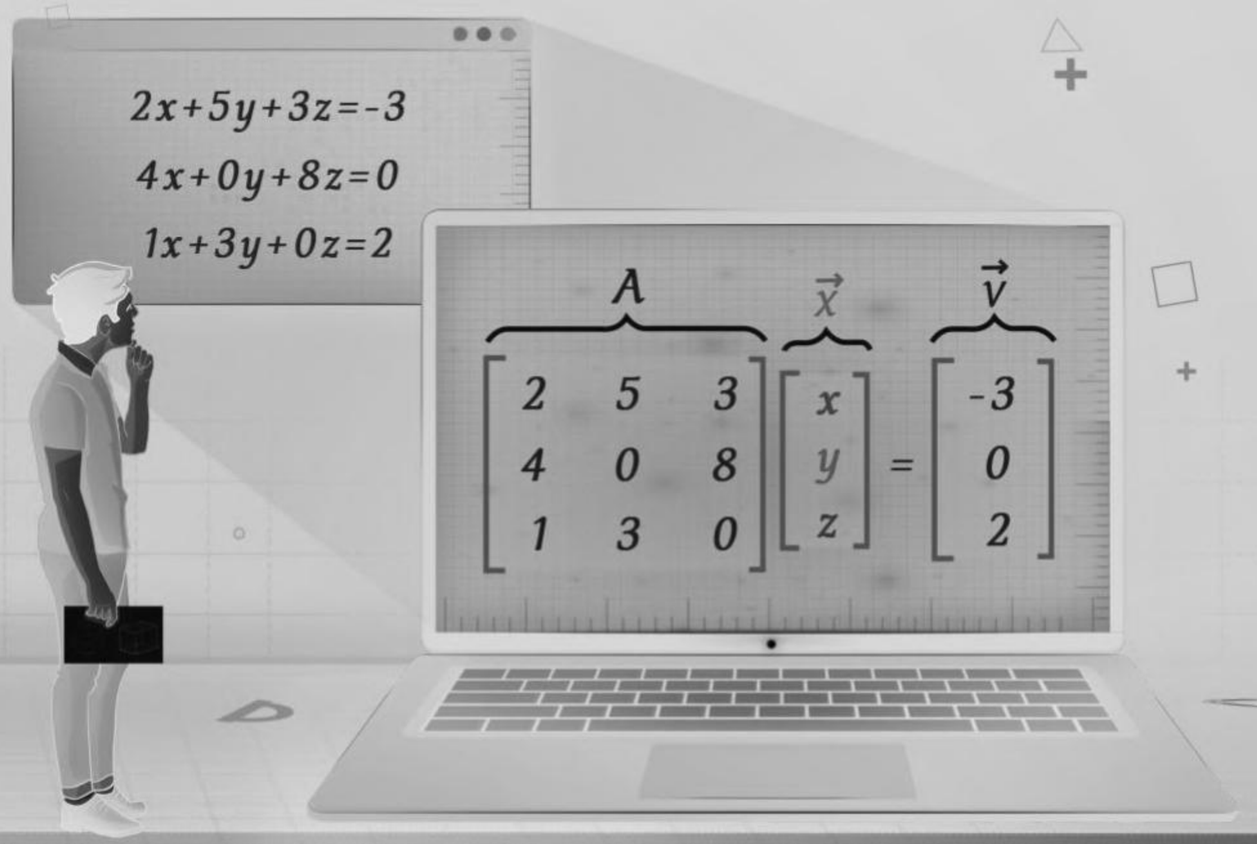
Welcome to

Aakash + BYJU'S LIVE

Matrices & Determinants



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Introduction to Matrices

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Key Takeaways

- A rectangular arrangement of $m \cdot n$ numbers (real or complex) or expressions (real or complex valued), having m rows and n columns is called a matrix. $(m, n \in N)$

$$A = \begin{bmatrix} a_{11} & a_{12} & a_{13} \cdots a_{1n} \\ a_{21} & a_{22} & a_{23} \cdots a_{2n} \\ \vdots & \vdots & \vdots \quad \vdots \\ a_{m1} & a_{m2} & a_{m3} \cdots a_{mn} \end{bmatrix}$$

Rows

Columns

- An element of a matrix is denoted by

  a_{ij}: Element of i^{th} row & j^{th} column.

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Rows

Columns

- Number of elements in a matrix

  = Number of rows × Number of columns

  $= m \times n$

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