Matrices

A set of mn numbers (real or complex) arranged in the form of a rectangular array having m rows and n column is called an $m \times n$ matrix

$$A = \begin{bmatrix} a_{11} & a_{12} & a_{13} & \cdots & a_{1n} \\ a_{21} & a_{22} & a_{23} & \cdots & a_{2n} \\ \vdots & & & & \\ a_{m1} & a_{m2} & a_{33} & \cdots & a_{mn} \end{bmatrix}_{m \times n}$$