# LINEAR EQUATION IN TWO VARIABLE

○ An equation of the type $ax + by + c = 0$, where $a, b, c$ are real numbers and $a \neq 0$ and $b \neq 0$.

○ Values of $x$ and $y$ for which equations hold true are called its solutions.

○ A linear equation in two variable has infinitely many solutions.

○ When represented graphically, it represents a straight line & every solution is a point in this straight line.

○ Two linear equations with two same variables are called pair of linear equations.

○ The general form of this equation is

$$a_1 x + b_1 y + c_1 = 0$$
$$a_2 x + b_2 y + c_2 = 0$$

where $a_1, a_2, b_1, b_2, c_1, c_2$ are real numbers and

$$a_1^2 + b_1^2 \neq 0 \ \& \ a_2^2 + b_2^2 \neq 0.$$