



SpeedLabs

MATHS

CBSE 9th

TEEVRA EDUTECH PVT. LTD.

Q 1. The cost of a notebook is twice the cost of a pen. Write a linear equation in two variables to represent this statement. (Take the cost of a notebook to be Rs x and that of a pen to be Rs y).

Ans - Let the cost of a notebook and a pen be x and y respectively.

Cost of notebook = $2 \times$ Cost of pen

$$x = 2y$$

$$x - 2y = 0$$

Q 2. Express the following linear equations in the form $ax + by + c = 0$ and indicate the values of a, b, c in each case:

(i) $2x + 3y = 9.3\bar{5}$

(ii) $x - \frac{y}{5} - 10 = 0$

(iii) $-2x + 3y = 6$

(iv) $x = 3y$

(v) $2x = -5y$

(vi) $3x + 2 = 0$

(vii) $y - 2 = 0$

(viii) $5 = 2x$

Ans - (i) $2x + 3y = 9.3\bar{5}$

$$2x + 3y = 9.3\bar{5} = 0$$

Comparing this equation with $ax + by + c = 0$,

$$a = 2, b = 3, c = -9.3\bar{5}$$

(ii) $x - \frac{y}{5} - 10 = 0$

Comparing this equation with $ax + by + c = 0$,

$$a = 1, b = -\frac{1}{5}, c = -10$$

(iii) $-2x + 3y = 6$

$$-2x + 3y - 6 = 0$$

Comparing this equation with $ax + by + c = 0$,

$$a = -2, b = 3, c = -6$$

(iv) $x = 3y$

$$1x - 3y + 0 = 0$$

Comparing this equation with $ax + by + c = 0$,

$$a = 1, b = -3, c = 0$$

(v) $2x = -5y$

$$2x + 5y + 0 = 0$$

Comparing this equation with $ax + by + c = 0$,

$$a = 2, b = 5, c = 0$$

(vi) $3x + 2 = 0$

$$3x + 0y + 2 = 0$$

Comparing this equation with $ax + by + c = 0$,

$$a = 3, b = 0, c = 2$$

(vii) $y - 2 = 0$

$$0x + 1y - 2 = 0$$

Comparing this equation with $ax + by + c = 0$,

$$a = 0, b = 1, c = -2$$

(viii) $5 = 2x$

$$-2x + 0y + 5 = 0$$

Comparing this equation with $ax + by + c = 0$,

$$a = -2, b = 0, c = 5$$