Linear Equations in Two Variables Ex 13.2 Q2

Answer :

(i) We are given,

$$5x - 2y = 10$$

Substituting x = 0 in the given equation, we get

$$5 \times 0 - 2y = 10$$

$$-2y = 10$$

$$y = -\frac{10}{2}$$

$$y = -5$$

Thus $\boxed{x = 0}$ and $\boxed{y = -5}$ is the solution of $5x - 2y = 10$

Substituting y = 0 in the given equation, we get

$$5x - 2 \times 0 = 10$$

$$5x = 10$$

$$x = \frac{10}{5}$$

$$y = 2$$

Thus $\boxed{x = 2}$ and $\boxed{y = 0}$ is the solution of $5x - 2y = 10$

(ii) We are given,

$-4x + 3y = 12$

Substituting $x = 0$ in the given equation, we get

$-4 \times 0 + 3y = 12$

$3y = 12$

$y = 4$

Thus x = 0 and y = 4 is the solution of the −4x + 3y = 12

Substituting y = 0 in the given equation, we get

$-4x + 3 \times 0 = 12$

$-4x = 12$

$x = -\dfrac{12}{4}$

$x = -3$

Thus $\boxed{x = -3}$ and $\boxed{y = 0}$ is the solution of $-4x + 3y = 12$

(iii) We are given,

$2x + 3y = 24$

Substituting x = 0 in the given equation, we get

$2 \times 0 + 3y = 24$

$3y = 12$

$y = \dfrac{24}{3}$

$y = 8$

Thus $\boxed{x = 0}$ and $\boxed{y = 8}$ is the solution of $2x + 3y = 24$

Substituting y = 0 in the given equation, we get

$2x + 3 \times 0 = 24$

$2x = 24$

$x = \dfrac{24}{2}$

$x = 12$

Thus $\boxed{x = 12}$ and $\boxed{y = 0}$ is the solution of $2x + 3y = 24$

********** END *********