Pair of Linear Equations in Two varibles Ex 3.2 Q8

Answer :

The given equations are:

$$2x + 3y = 4 \qquad \text{.......}(i)$$

$$x - y + 3 = 0 \qquad \text{.......}(ii)$$

Putting $x = 0$ in equation (i), we get:

$$\Rightarrow 2 \times 0 + 3y = 4$$

$$\Rightarrow y = 4/3$$

$$x = 0, \qquad y = 4/3$$

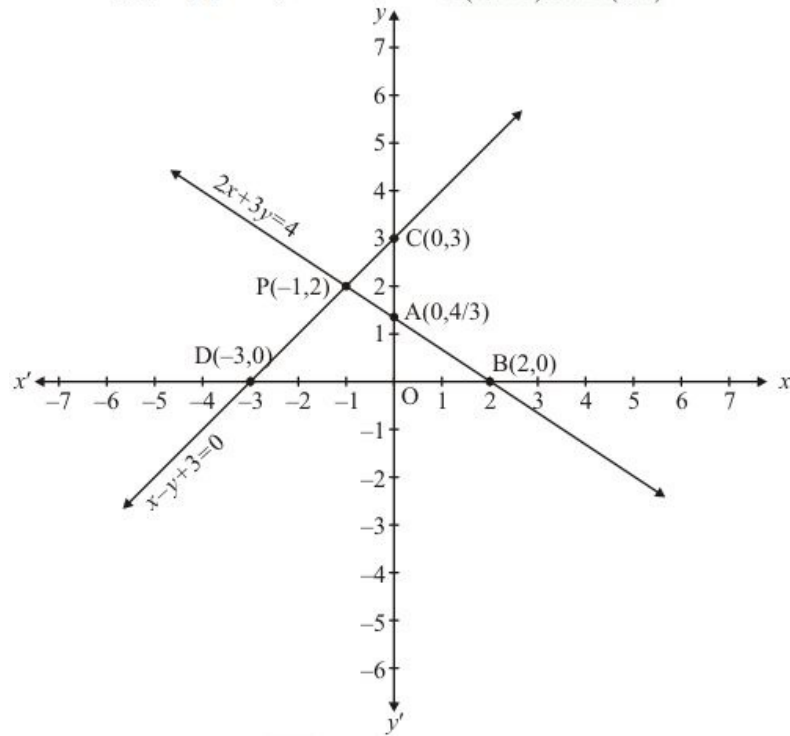Putting $y = 0$ in equation $(i,)$ we get:

$$\Rightarrow 2x + 3 \times 0 = 4$$

$$\Rightarrow x = 2$$

$$x = 2, \qquad y = 0$$

Use the following table to draw the graph.

x	0	2
y	4/3	0

Draw the graph by plotting the two points $A(0,4/3)$ and $B(2,0)$ from table

Graph of the equation.....(ii):

$x - y = -3$ ....(ii)

Putting $x = 0$ in equation (ii) we get:

$\Rightarrow 0 - y = -3$

$\Rightarrow y = 3$

$x = 0, \quad y = 3$

Putting $y = 0$ in equation (ii), we get:

$\Rightarrow x - 0 = -3$

$\Rightarrow x = -3$

$x = -3, \quad y = 0$

Use the following table to draw the graph.

x	0	-3
y	3	0

Draw the graph by plotting the two points $C(0,3)$ and $D(-3,0)$ from table

The two lines intersect at points $P(-1,2)$.

Hence, $\boxed{x = -1}$ and $\boxed{y = 2}$ is the solution.

Pair of Linear Equations in Two varibles Ex 3.2 Q9

Answer :

The given equations are:

$$2x - 3y + 13 = 0 \quad \quad ....(i)$$
$$3x - 2y + 12 = 0 \quad \quad ....(ii)$$

Putting $x = 0$ in equation (i), we get:

$$\Rightarrow 2 \times 0 - 3y = -13$$
$$\Rightarrow y = 13/3$$
$$x = 0, \quad y = 13/3$$

Putting $y = 0$ in equation (i) we get
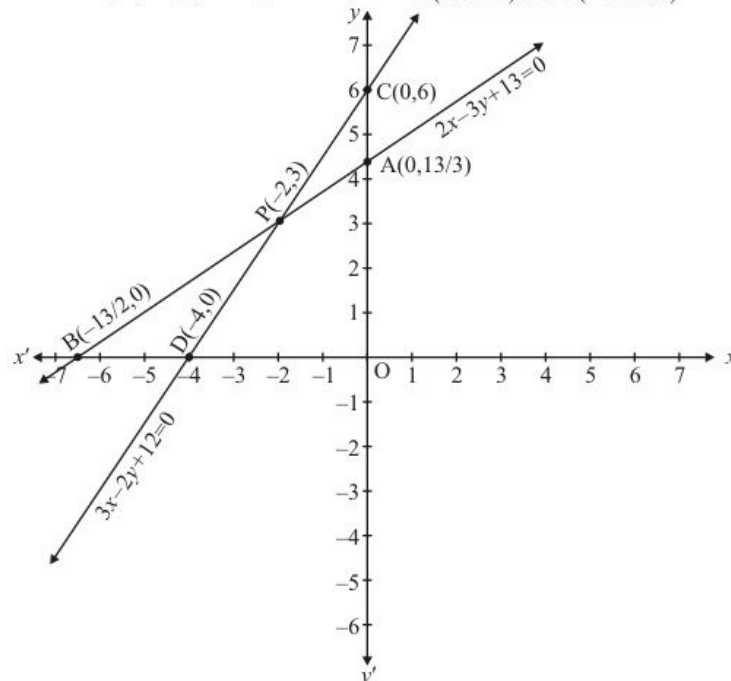
$$\Rightarrow 2x - 3 \times 0 = -13$$
$$\Rightarrow x = -13/2$$
$$x = -13/2, \quad y = 0$$

Use the following table to draw the graph.

x	0	$-13/2$
y	13/3	0

Draw the graph by plotting the two points $A(0, 13/2)$ and $B(-13/2, 0)$ from table.

Graph of the equation....(ii):

$3x - 2y = -12$ ....(ii)

Putting $x = 0$ in equation (ii) we get:

$\Rightarrow 3 \times 0 - 2y = -12$

$\Rightarrow y = 6$

$x = 0, \quad y = 6$

Putting $y = 0$ in equation (ii), we get:

$\Rightarrow 3x - 2 \times 0 = -12$

$\Rightarrow x = -4$

$x = -4, \qquad y = 0$

Use the following table to draw the graph.

x	0	-4
y	6	0

Draw the graph by plotting the two points $C(0,6)$ and $D(-4,0)$ from table.

The two lines intersect at points $P(-2,3)$.

Hence, $\boxed{x = -2}$ and $\boxed{y = 3}$ is the solution.

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