Pair of Linear Equations in Two varibles Ex 3.2 Q3

Answer :

The given equations are

$3x+y+1=0 \quad .....(i)$

$2x-3y+8=0 \quad .....(ii)$

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

$\Rightarrow 3\times 0+y=-1$

$\Rightarrow y=-1$

$x=0, \quad y=-1$

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

$\Rightarrow 3x+0=-1$

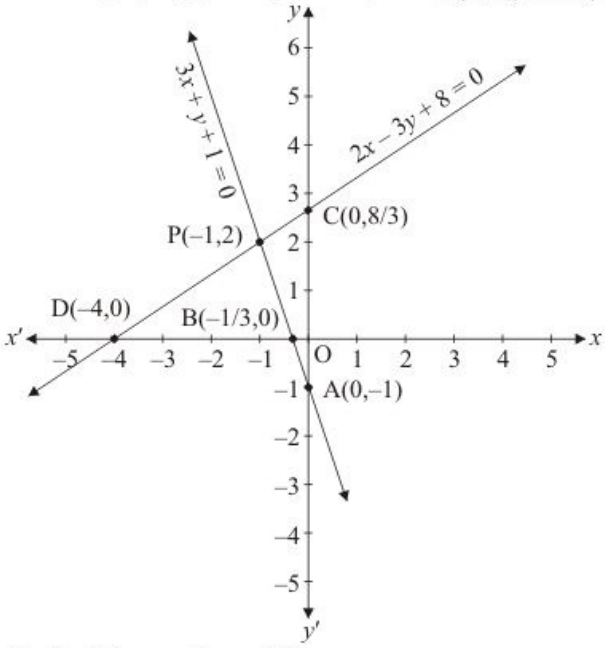
$\Rightarrow x=-1/3$

$x=-1/3, \qquad y=0$

Use the following table to draw the graph.

x	0	$-1/3$
y	-1	0

Draw the graph by plotting the two points $A(0,-1)$ and $B(-1/3,0)$ from table.



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

$2x-3y=-8$ .....(ii)

Putting $x=0$ in equation (ii) we ge

$\Rightarrow 2\times 0-3y=-8$

$\Rightarrow y=8/3$

$x=0, \quad y=8/3$

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

$\Rightarrow 2x-3\times 0=-8$

$\Rightarrow x=-4$

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

Use the following table to draw the graph.

x	0	−4
y	8/3	0

Draw the graph by plotting the two points $C(0,8/3)$ *and* $D(-4,0)$ from table.

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

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

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