Pair of Linear Equations in Two varibles Ex 3.2 Q6

Answer :

The given equations are:

$x-2y=6 \quad .....(i)$

$3x-6y=0 \quad .....(ii)$

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

$\Rightarrow 0-2y=6$

$\Rightarrow y=-3$

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

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

$\Rightarrow x-2\times 0=6$

$\Rightarrow y=6$

$x=6, \quad y=0$

Use the following table to draw the graph.

x	0	6
y	-3	0

Plotting the two points $A(0,-3)$ *and* $B(6,0)$ equation (i) can be drawn.

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

$3x-6y=0 \quad .....(ii)$

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

$\Rightarrow 3\times 0-6y=0$

$\Rightarrow y=0$

$x=0, \quad y=0$

Putting x=2 in equation (ii), we get:

$\Rightarrow 3\times 2-6y=0$

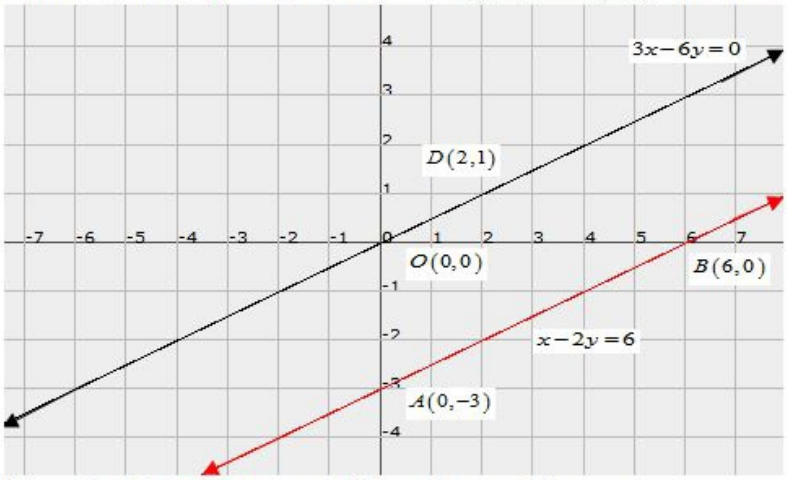
$\Rightarrow y=1$

$x=2, \quad y=1$

Use the following table to draw the graph.

x	0	2
y	0	1

Draw the graph by plotting the two points $O(0,0)$ *and* $D(2,1)$ from table.



We see that the two lines are parallel, so they won't intersect

Hence there is no solution

Pair of Linear Equations in Two varibles Ex 3.2 Q7

Answer :

The given equations are

$x+y=4 \quad .....(i)$

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

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

$\Rightarrow 0+y=4$

$\Rightarrow y=4$

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

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

$\Rightarrow x+0=4$

$\Rightarrow x=4$

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

Use the following table to draw the graph.

x	0	4
y	4	0

Draw the graph by plotting the two points $A(4,0)$ *and* $B(4,0)$ from table.

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

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

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

$\Rightarrow 0-3y=3$

$\Rightarrow y=-1$

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

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

$\Rightarrow 2x - 0 = 3$

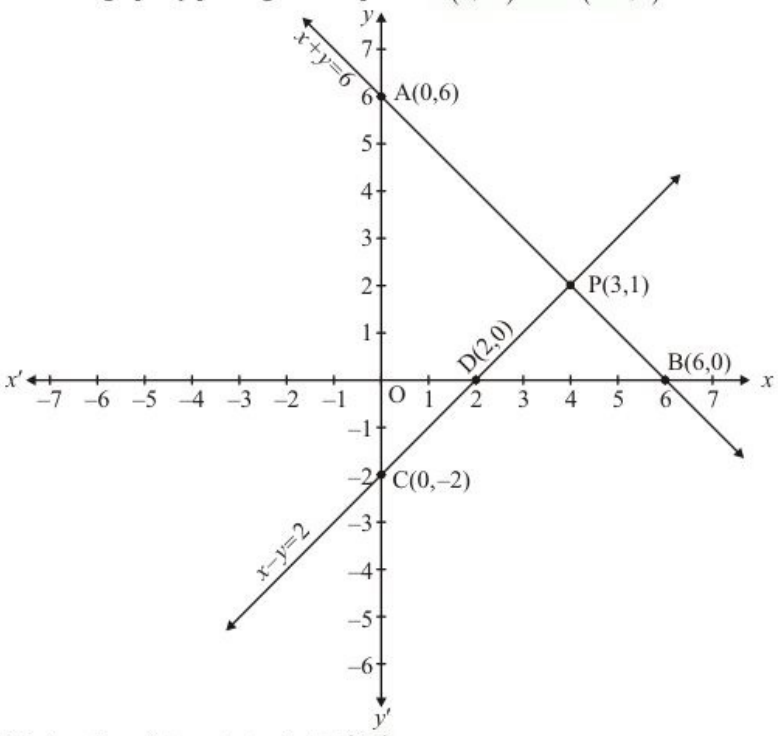
$\Rightarrow x = 3/2$

$\therefore \quad x = 3/2, \qquad y = 0$

Use the following table to draw the graph.

x	0	$3/2$
y	-1	0

Draw the graph by plotting the two points $C(0,-1)$ *and* $D(3/2,0)$ from table.



The two lines intersect at points $P(3,1)$.

Hence $x = 3, \quad y = 1$ is the solution

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