Pair of Linear Equations in Two varibles Ex 3.2 Q2

Answer :

The given equations are

$x-2y=5 \quad .....(i)$

$2x+3y=10 \quad .....(ii)$

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

$\Rightarrow 0-2y=5$

$\Rightarrow y=-5/2$

$x=0, \ y=-5/2$

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

$\Rightarrow x+2\times 0=5$

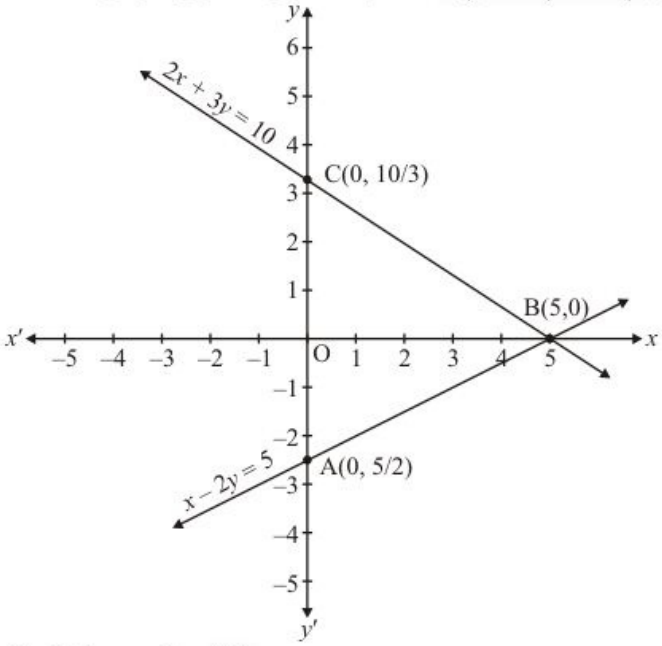
$\Rightarrow x=5$

$x=5, \ y=0$

Use the following table to draw the graph.

x	0	5
y	$-5/2$	0

Draw the graph by plotting the two points $A(0,-5/2)$ *and* $B(5,0)$ from table.



Graph the equation (ii):

$\Rightarrow 2x+3y=10$ .....(ii)

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

$\Rightarrow 2\times 0+3y=10$

$\Rightarrow y=10/3$

$x=0, \quad y=10/3$

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

$\Rightarrow 2x+3\times 0=10$

$\Rightarrow x=5$

$x=5, \quad y=0$

Use the following table to draw the graph.

x	0	5
y	10/3	0

Draw the graph by plotting the two points $C(0,10/3)$ and $B(5,0)$ from table.

The two lines intersects at point $B(5,0)$.

Hence $\boxed{x=5, y=0}$ is the solution

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