Pair of Linear Equations in Two varibles Ex 3.2 Q1

Answer :

The given equations are:

$x + y = 3$ ......(i)

$2x + 5y = 12$ ......(ii)

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

$\Rightarrow 0 + y = 3$

$\Rightarrow y = 3$

$x = 0, \ y = 3$

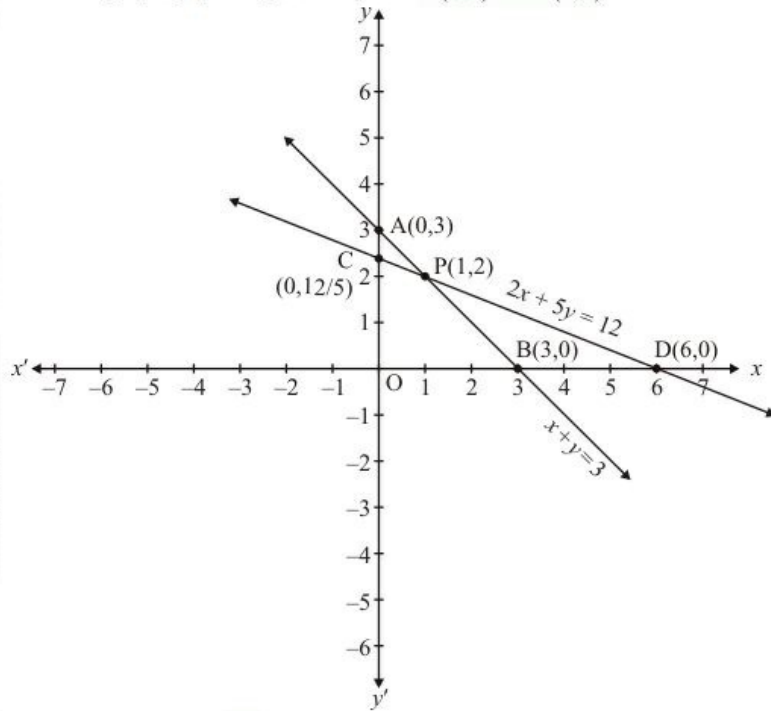Putting $y = 0$ in equation (i), we get:

$\Rightarrow x + 0 = 3$

$\Rightarrow x = 3$

$x = 3, \ y = 0$

Use the following table to draw the graph.

x	0	3
y	3	0

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

Graph of the equation (ii):

$\Rightarrow 2x + 5y = 12$ ......(ii)

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

$\Rightarrow 2 \times o + 5y = 12$

$\Rightarrow 5y = 12$

$\Rightarrow y = 12/5$

$x = 0, \ y = 12/5$

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

$\Rightarrow 2x + 5 \times 0 = 12$

$\Rightarrow 2x = 12$

$\Rightarrow x = 6$

$x = 6, \ y = 0$

Use the following table to draw the graph.

x	0	6
y	12/5	0

Draw the graph by plotting the two points $C(0,12/5), D(6,0)$ from the table.

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

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

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