



Pair of Linear Equations in Two variables Ex 3.2 Q1

Answer :

The given equations are:

$$x + y = 3 \quad \dots\dots(i)$$

$$2x + 5y = 12 \quad \dots\dots(ii)$$

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:

$$\Rightarrow x + 0 = 3$$

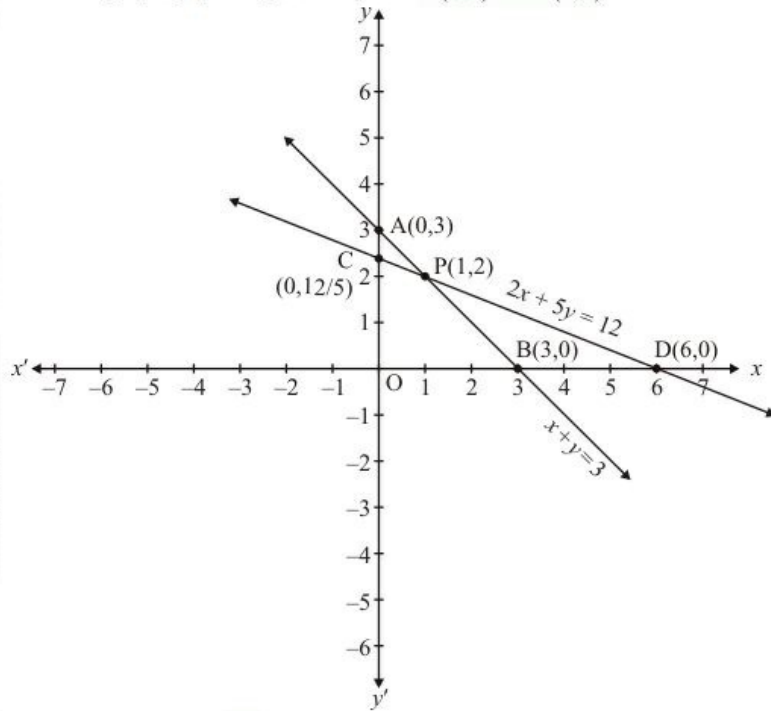
$$\Rightarrow x = 3$$

$$x = 3, y = 0$$

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) :

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

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

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

$$\Rightarrow 5y = 12$$

$$\Rightarrow y = 12/5$$

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

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

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

$$\Rightarrow 2x = 12$$

$$\Rightarrow x = 6$$

$$x = 6, \quad y = 0$$

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, $x=1$ and $y=2$ is the solution.

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