



Pair of Linear Equations in Two variables Ex 3.2 Q35

**Answer :**

The given equations are:

$$3x - 4y = 7 \quad \dots\dots(i)$$

$$5x + 2y = 3 \quad \dots\dots(ii)$$

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

$$\Rightarrow 3 \times 0 - 4y = 7$$

$$\Rightarrow y = -7 / 4$$

$$x = 0, \quad y = -7 / 4$$

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

$$\Rightarrow 3x - 4 \times 0 = 7$$

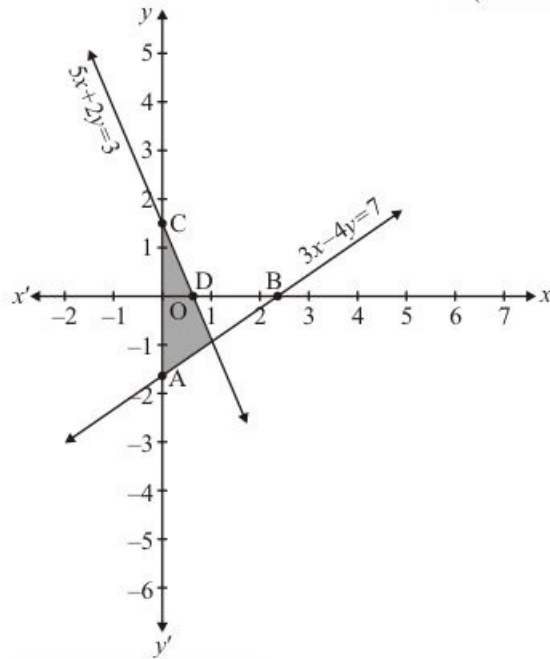
$$\Rightarrow x = 7 / 3$$

$$x = 7 / 3, \quad y = 0$$

Use the following table to draw the graph.

$x$	0	$7 / 3$
$y$	$-7 / 4$	0

Draw the graph by plotting the two points  $A(0, -7/4), B(7/3, 0)$  from table.



$$5x + 2y = 3 \quad \dots\dots(ii)$$

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

$$\Rightarrow 5 \times 0 + 2y = 3$$

$$\Rightarrow y = 3/2$$

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

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

$$\Rightarrow 5x + 2 \times 0 = 3$$

$$\Rightarrow x = 3/5$$

$$x = 3/5, \quad y = 0$$

Use the following table to draw the graph.

$x$	0	3/5
$y$	3/2	0

Draw the graph by plotting the two points  $C(0, 3/2)$  and  $D(3/5, 0)$  from table.

The two lines intersect at points  $P(1, -1)$  of  $y$ -axis.

Hence,  $\boxed{x = 1}$  and  $\boxed{y = -1}$  is the Solution.

(ii) The equations are:

$$4x - y = 4 \quad \dots\dots(1)$$

$$3x + 2y = 14 \quad \dots\dots(2)$$

Putting  $x = 0$  in equation (1) we get:

$$\Rightarrow 4 \times 0 - y = 4$$

$$\Rightarrow y = -4$$

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

Putting  $y = 0$  in equation (1) we get:

$$\Rightarrow 4x - 0 = 4$$

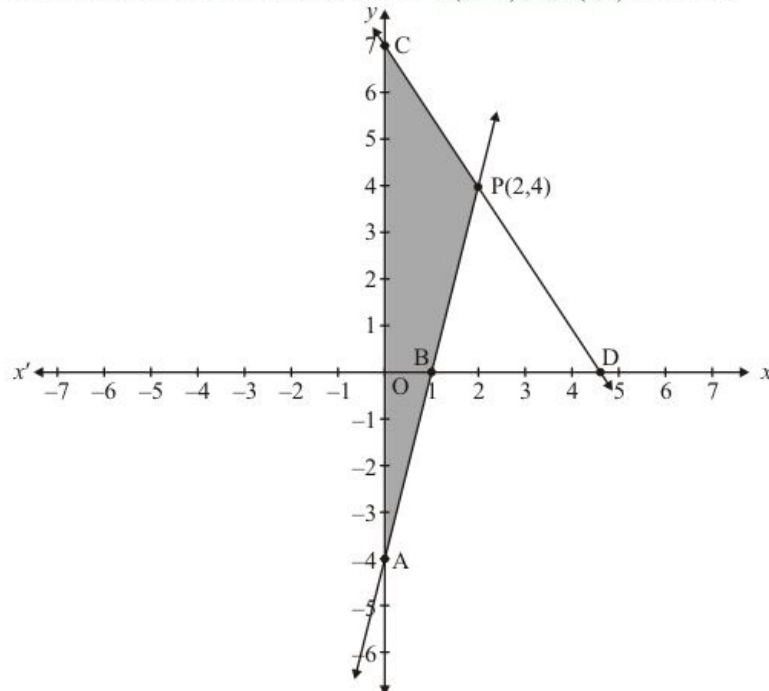
$$\Rightarrow x = 1$$

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

Use the following table to draw the graph:

$x$	0	1
$y$	-4	0

Draw the graph by plotting the two points  $A(0, -4)$  and  $B(1, 0)$  from table.



$$3x + 2y = 14 \quad \dots\dots(2)$$

Putting  $x = 0$  in equation (2) we get:

$$\Rightarrow 3 \times 0 + 2y = 14$$

$$\Rightarrow y = 7$$

$$x = 0, \quad y = 7$$

Putting  $y = 0$  in equation (2) we get:

$$\Rightarrow 3x + 2 \times 0 = 14$$

$$\Rightarrow x = 14/3$$

$$x = 14/3, \quad y = 0$$

Use the following table to draw the graph.

$x$	0	$14/3$
$y$	7	0

Draw the graph by plotting the two points  $C(0, 7)$ ,  $D(14/3, 0)$  from table.

Two lines intersect at points  $P(2, 4)$  of y-axis.

Hence  $\boxed{x = 2}$  and  $\boxed{y = 4}$  is the solution.

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