



# Pair of Linear Equations in Two variables Ex 3.2 Q16

**Answer :**

The given equations are

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

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

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

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

$$\Rightarrow y = -3$$

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

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

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

$$\Rightarrow x = 6$$

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

Use the following table to draw the graph.

$x$	0	6
$y$	-3	0

The graph of (i) can be obtained by plotting the two points  $A(0, -3), B(6, 0)$ .

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

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

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

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

$$\Rightarrow y = 0$$

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

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

$$\Rightarrow 3x - 6 \times 1 = 0$$

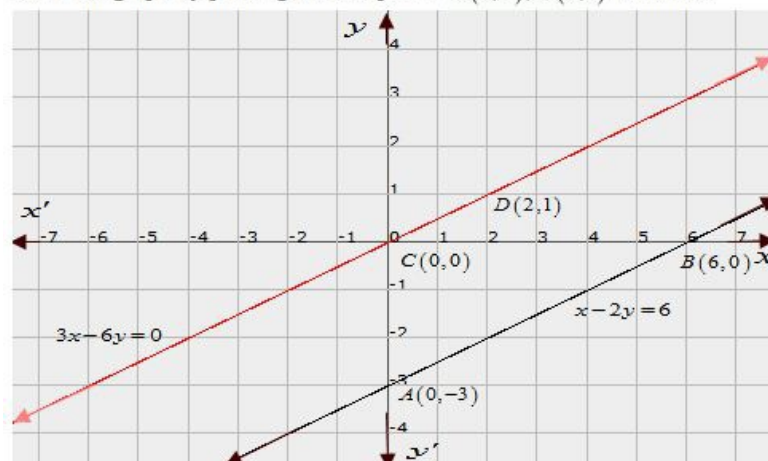
$$\Rightarrow x = 2$$

$$\Rightarrow x = 2, \quad y = 1$$

Use the following table to draw the graph.

$x$	0	2
$y$	0	1

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



Here the two lines are parallel and so there is no point in common

Hence the given system of equations has no solution.

# Pair of Linear Equations in Two variables Ex 3.2 Q17

**Answer :**

The given equations are

$$2y - x = 9 \quad \text{.....(i)}$$

$$6y - 3x = 21 \quad \text{.....(ii)}$$

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

$$\Rightarrow 2y - 0 = 9$$

$$\Rightarrow y = 9/2$$

$$\Rightarrow x = 0, \quad y = 9/2$$

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

$$\Rightarrow 2 \times -x = 9$$

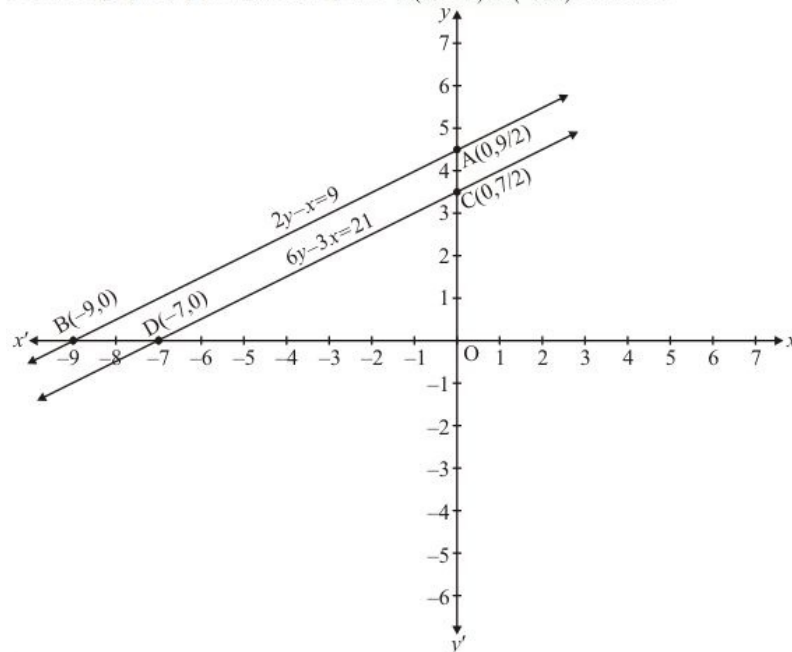
$$\Rightarrow x = -9$$

$$\Rightarrow x = -9, \quad y = 0$$

Use the following table to draw the graph.

$x$	0	-9
$y$	9/2	0

Draw the graph by plotting the two points  $A(0, 9/2), B(-9, 0)$  from table.



$$6y - 3x = 21 \quad \dots\dots(ii)$$

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

$$\Rightarrow 6y - 3 \times 0 = 21$$

$$\Rightarrow y = 7/2$$

$$\Rightarrow x = 0, \quad y = 7/2$$

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

$$\Rightarrow 6 \times 0 - 3x = 21$$

$$\Rightarrow x = -7$$

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

Use the following table to draw the graph.

$x$	0	-7
$y$	7/2	0

Draw the graph by plotting the two points  $C(0, 7/2), D(-7, 0)$  from table.

Here two lines are parallel and so don't have common points

Hence the given system of equations has no solution.

\*\*\*\*\* END \*\*\*\*\*