



Pair of Linear Equations in Two variables Ex 3.2 Q20

Answer :

The given equations are

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

$$4x - 2y = 5 \quad \dots\dots(ii)$$

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

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

$$\Rightarrow y = -1$$

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

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

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

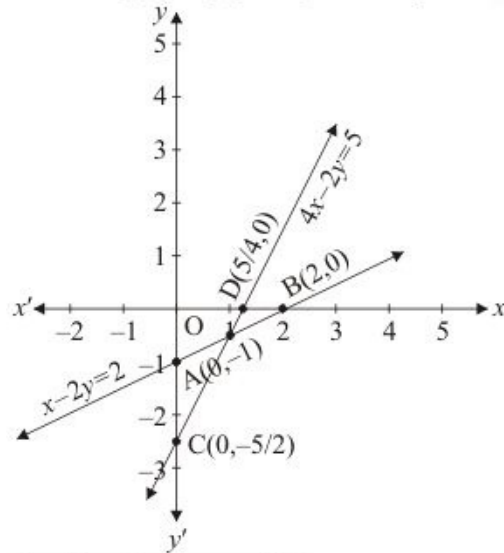
$$\Rightarrow x = 2$$

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

Use the following table to draw the graph.

x	0	2
y	-1	0

Draw the graph by plotting the two points $A(0, -1), B(2, 0)$ from table.



$$4x - 2y = 5 \quad \dots\dots(ii)$$

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

$$\Rightarrow 4 \times 0 - 2y = 5$$

$$\Rightarrow y = -5/2$$

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

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

$$\Rightarrow 4x - 2 \times 0 = 5$$

$$\Rightarrow x = 5/4$$

$$\Rightarrow x = 5/4, \quad y = 0$$

Use the following table to draw the graph.

x	0	5/4
y	-5/2	0

Draw the graph by plotting the two points $C(0, -5/2), D(5/4, 0)$ from table.

It has unique solution.

Hence the system of equations is consistent

***** END *****