

Linear Equations in Two Variables Ex 13.3 Q12

Answer:

(i) We are given,

$$6x - 3y = 12$$

We get,

$$y = \frac{6x - 12}{3}$$

Now, substituting x = 0 in $y = \frac{6x - 12}{3}$, we get

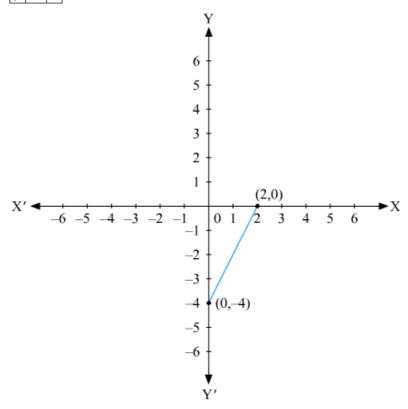
$$v = -4$$

Substituting
$$x = 2$$
 in $y = \frac{6x - 12}{3}$, we get

$$y = 0$$

Thus, we have the following table exhibiting the abscissa and ordinates of points on the line represented by the given equation

х	0	2
v	-4	0



Co-ordinates of the points where graph cuts the co-ordinate axes are y = -4 at y axis and x = 2at x axis.

(ii) We are given,

$$-x + 4y = 8$$

We get,

$$y = \frac{8+x}{4}$$

Now, substituting x = 0 in $y = \frac{8+x}{4}$, we get

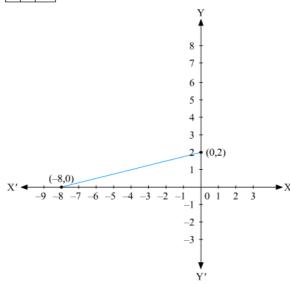
$$y = 2$$

Substituting
$$x = -8$$
 in $y = \frac{8+x}{4}$, we get

$$y = 0$$

Thus, we have the following table exhibiting the abscissa and ordinates of points on the line represented by the given equation

x	0	-8
ν	2	0



Co-ordinates of the points where graph cuts the co-ordinate axes are y = 2 at y axis and x = -8at x axis.

(iii) We are given,

$$2x + y = 6$$

We get,

$$y = 6 - 2x$$

Now, substituting x = 0 in y = 6 - 2x, we get

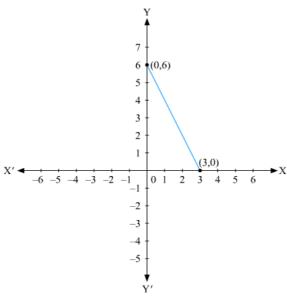
$$y = 6$$

Substituting x = 3 in y = 6 - 2x, we get

$$y = 0$$

Thus, we have the following table exhibiting the abscissa and ordinates of points on the line represented by the given equation

x	0	3
y	6	0



Co-ordinates of the points where graph cuts the co-ordinate axes are y = 6 at y axis and x = 3

(iv) We are given,

$$3x + 2y + 6 = 0$$

We get,

$$y = \frac{-(6+3x)}{2}$$

Now, substituting x = 0 in $y = \frac{-(6+3x)}{2}$, we get

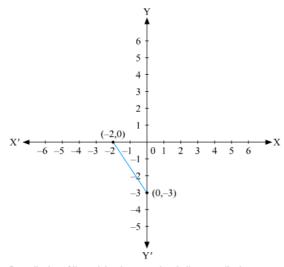
$$v = -3$$

Substituting
$$x = -2$$
 in $y = \frac{-(6+3x)}{2}$, we get

$$v = 0$$

Thus, we have the following table exhibiting the abscissa and ordinates of points on the line represented by the given equation

х	0	-2
ν	-3	0



Co-ordinates of the points where graph cuts the co-ordinate axes are y=-3 at y axis and x=-2 at x axis.

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