



Linear Equations in Two Variables Ex 13.3 Q19

Answer :

We are given the path of train A,

$$3x + 4y - 12 = 0$$

We get,

$$y = \frac{12 - 3x}{4}$$

Now, substituting $x = 0$ in $y = \frac{12 - 3x}{4}$, we get

$$y = 3$$

Substituting $x = 4$ in $y = \frac{12 - 3x}{4}$, 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	4
y	3	0

Plotting A(4,0) and E(0,3) on the graph and by joining the points, we obtain the graph of equation

$$3x + 4y - 12 = 0.$$

We are given the path of train B,

$$6x + 8y - 48 = 0$$

We get,

$$y = \frac{48 - 6x}{8}$$

Now, substituting $x = 0$ in $y = \frac{48 - 6x}{8}$, we get

$$y = 6$$

Substituting $x = 8$ in $y = \frac{48 - 6x}{8}$, we get

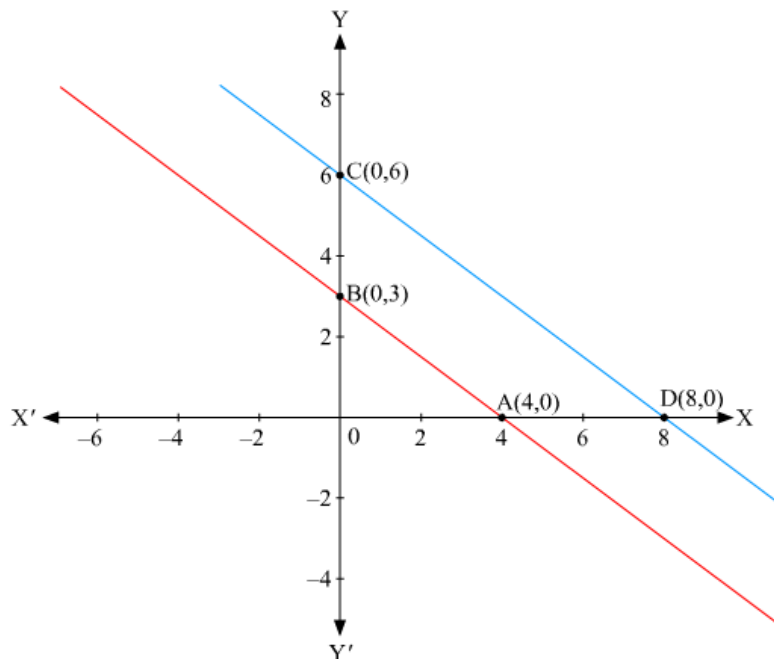
$$y = 0$$

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

x	0	8
y	6	0

Plotting C(0,6) and D(8,0) on the graph and by joining the points, we obtain the graph of equation

$$6x + 8y - 48 = 0$$



***** END *****

