

CBSE Class 9 Mathematics
NCERT Solutions
CHAPTER 4
Linear Equations in Two Variables(Ex. 4.4)

1. Give the geometric representations of $y = 3$ as an equation

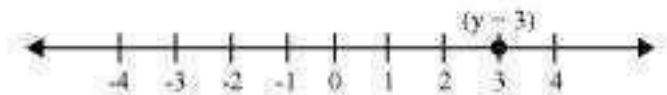
(i) In one variable

(ii) In two variables

Ans. (i) We need to represent the linear equation $y=3$ geometrically in one variable.

We can conclude that in one variable, the geometric representation of the linear equation $y=3$ will be same as representing the number 3 on a number line.

Given below is the representation of number 3 on the number line.



(ii) We need to represent the linear equation $y=3$ geometrically in two variables.

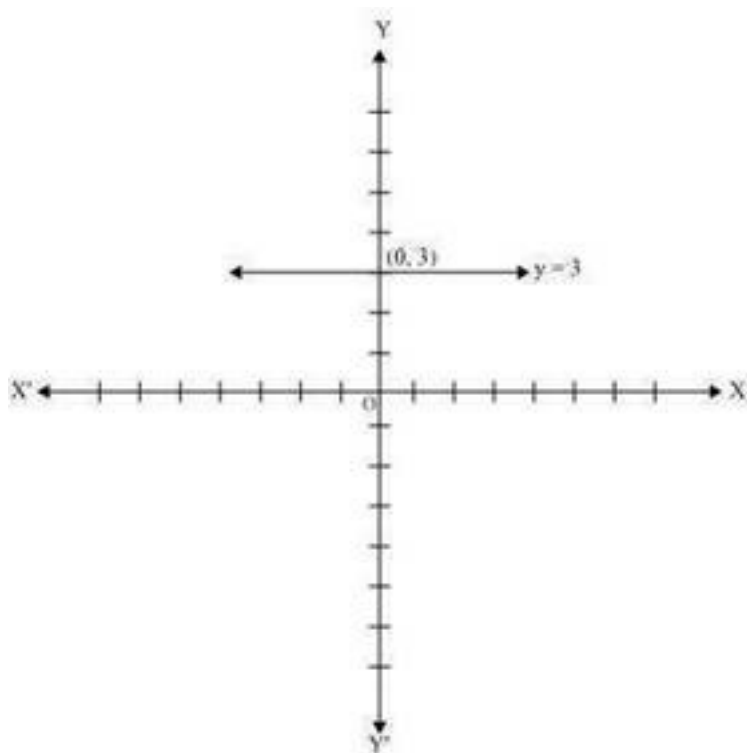
We know that the linear equation $y=3$ can also be written as $0.x + y = 3$

We can conclude that in two variables, the geometric representation of the linear equation $y=3$ will be same as representing the graph of linear equation $0.x + y = 3$

Given below is the representation of the linear equation $0.x + y = 3$ on a graph.

We can optionally consider the given below table for plotting the linear equation $0.x + y = 3$ on the graph.

x	1	0
y	3	3



2. Give the geometric representations of $2x + 9 = 0$ as an equation

(i) In one variable

(ii) In two variables

Ans. (i) We need to represent the linear equation $2x + 9 = 0$ geometrically in one variable.

We know that the linear equation $2x + 9 = 0$ can also be written as $x = -\frac{9}{2}$ or $x = -4.5$.

We can conclude that in one variable, the geometric representation of the linear equation

$2x + 9 = 0$ will be same as representing the number -4.5 on a number line.

Given below is the representation of number -4.5 on the number line.



(ii) We need to represent the linear equation $2x + 9 = 0$ geometrically in two variables.

We know that the linear equation $2x + 9 = 0$ can also be written as $2x + 0.y + 9 = 0$

We can conclude that in two variables, the geometric representation of the linear equation $2x + 9 = 0$ will be same as representing the graph of linear equation $2x + 0.y + 9 = 0$.

Given below is the representation of the linear equation $2x + 0.y + 9 = 0$ on a graph.

We can optionally consider the given below table for plotting the linear equation

$2x + 0.y + 9 = 0$ on the graph.

x	-4.5	-4.5	-4.5	-4.5	-4.5
y	0	1	2	-1	-2

