

Chapter 04

LINEAR EQUATIONS IN TWO VARIABLES

Equation of lines parallel to x-axis:

In Two Variables:

- ◆ A linear equation $x - a = 0$ is treated as an equation in two variables 'x' & 'y' i.e., $1.x + 0.y = a$.
- ◆ It has infinitely many solutions.
- ◆ This can be represented geometrically by the graph of $x = a$ is a straight line parallel to the y-axis passing through the point (a, 0) in cartesian plane.

Example:

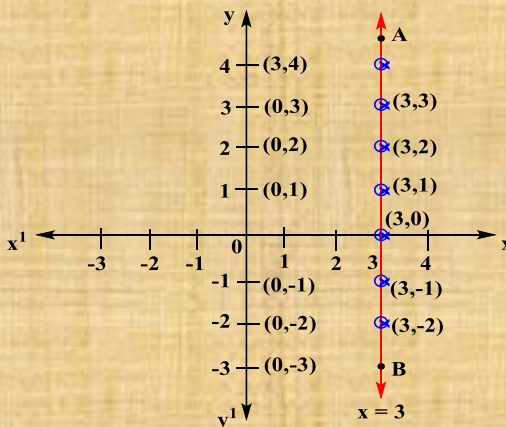
Represent $x - 3 = 0$ in two variables.

Solution:

In two variables $x - 3 = 0$ is $1.x + 0.y = 3$.

In this equation put $x = 3$ and 'y' is equal to any real number which is satisfied.

So the coordinates are (3,-2), (3,-1), (3,0), (3,1), (3,2), (3,3).



Note: The graph AB is a straight line parallel to the y-axis and at a distance of 3-units to the right to it.

