

IX Mathematics
Chapter 4: Linear Equations in Two Variables
Chapter Notes

Top Definitions

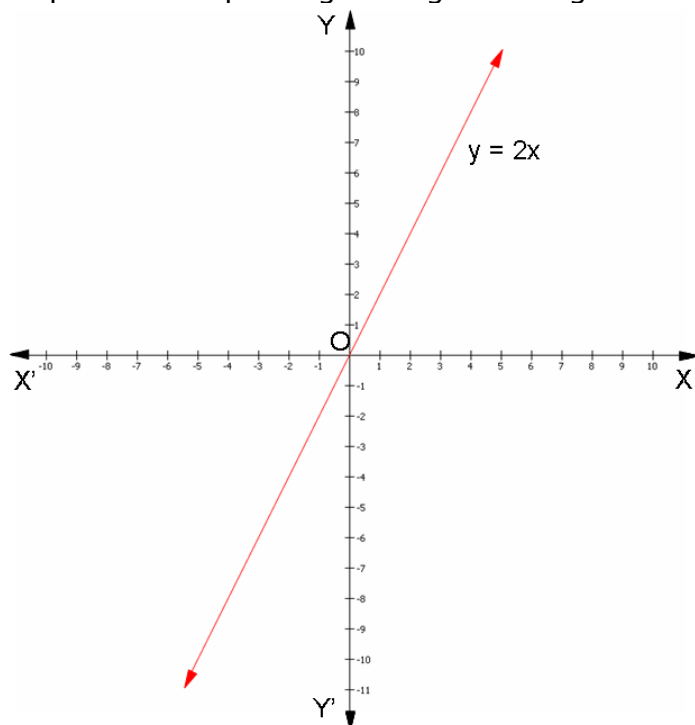
1. An equation of the form $ax + by + c = 0$, where a , b and c are real numbers, such that a and b are not both zero, is called a linear equation in two variables.
2. A linear equation in two variables is represented geometrically by a straight line the points of which make up the collection of solutions of equation. This is called the graph of the linear equation.

Top Concepts

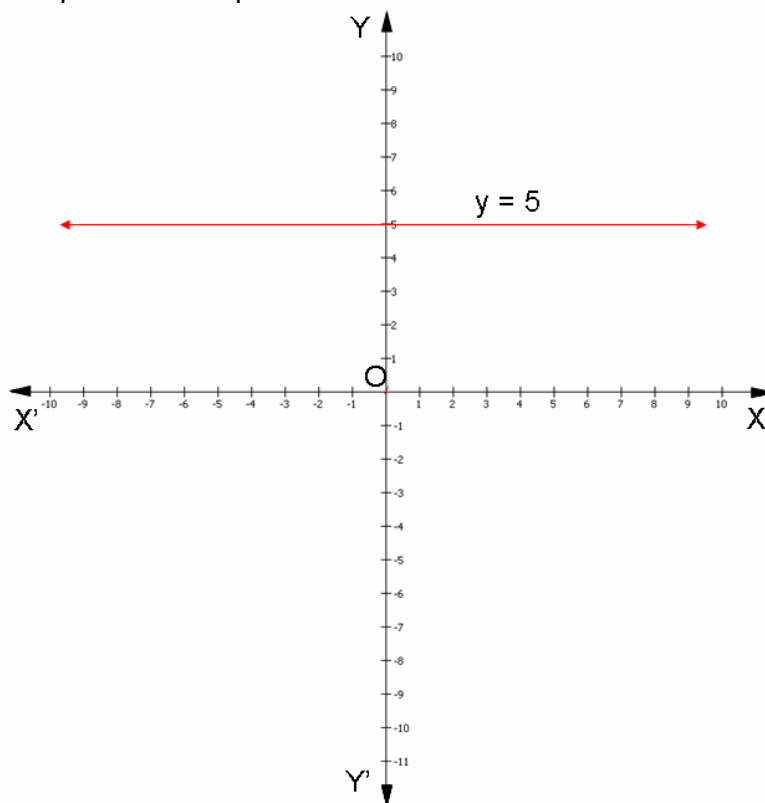
1. A linear equation in two variables has infinitely many solutions.
2. The graph of every linear equation in two variables is a straight line.
3. $x = 0$ is the equation of the y – axis and $y = 0$ is the equation of the x –axis.
4. The graph of $x = k$ is a straight line parallel to the y –axis.
5. The graph of $y = k$ is a straight line parallel to the x – axis.
6. An equation of the type $y = mx$ represents a line passing through the origin, where m is a real number.
7. Every point on the line satisfies the equation of the line and every solution of the equation is a point on the line.
8. The solution of a linear equation is not effected when:
 - (i) The same number is added or subtracted from both the side of an equation.
 - (ii) Multiplying or dividing both the sides of the equation by the same non zero number.

Top Diagrams

1. Graph of a line passing through the origin.



2. Graph of a line parallel to x axis.



3. Graph of a line parallel to y axis.

