

Subject	MATHEMATICS
Class	IX
Chapter/Unit	Algebra
Topic	Linear equations in two variables
Time	20 minutes
Nature of Activity	Individual

What will I learn(Learning outcome)?

To represent linear equation in one variable on cartesian plane

Skills:- Constructing, Interpreting, Problem Solving

What I have to do?

To represent given two linear equations in one variable on cartesian plane and finding the point of intersection

What do I require?

Graph paper, Geometry kit

What do I need to know?

Cartesian Plane, Linear equation in one variable and two variables.

➤ **Teacher's Activity**

The teacher will explain the method of writing linear equation in one variable into two variables and ask the students to represent the same on cartesian plane.

How will I proceed?

➤ **Student's Activity**

- Given two linear equations in one variable say $x = -3$ and $y = 4$
- Represent the given equations in two variables
- Find three solutions for each equation
- Draw the graph of both the equations
- Find the coordinates of the point of intersection of lines so obtained.

What have I observed?

Graph of line $x = -3$ is parallel to _____

Graph of line $y = 4$ is parallel to _____

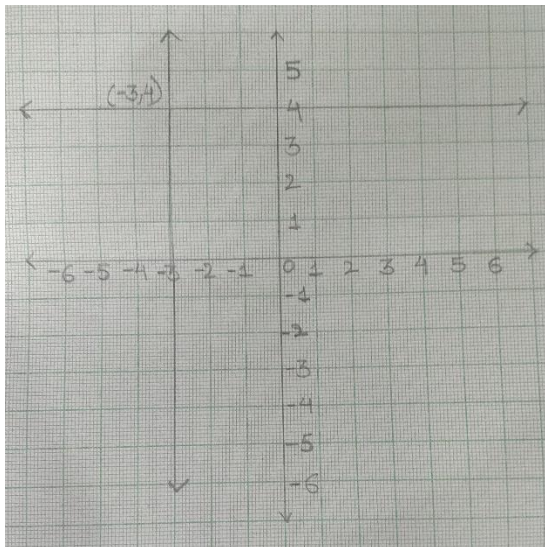
The point of intersection of two lines is _____

What have I learnt?

The graph of linear equation $x = a$ and $y = b$ intersect at(__ , __)

What am I curious to know?

Draw the graphs of the equation $y = x$ and $y = -x$ on the same graph paper. Find the coordinates of the point where two graphs meet.



Let me evaluate myself

1. Simplify $2x + 1 = x - 3$ and represent on the cartesian plane.

2. Find the solution of the linear equation $x + 2y = 8$ which represents a point on
- (i) the x -axis
 - (ii) the y -axis
 - (iii) the line parallel to x -axis and at a distance of 3 units above it.

3. Represent $x = 3$ and $y = -5$ on the Cartesian plane (on the same graph paper) and write the coordinates of point of intersection.
