

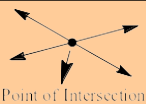
CHAPTER 03

Pair of Linear Equations in Two Variables

Geometrical or Graphical representation of a pair of linear equations:

Graphically a linear equation represents a straight line. Therefore, a pair of linear equations represents two straight lines. There are three distinct possibilities as follows: (If any pair of lines in the same plane).

- (i) If there is only one solution, then the system of linear equations is said to be “CONSISTENT” and “INDEPENDENT”. They have one and only one common point.
- (ii) If there is no solution, then the system of linear equations is said to be “INCONSISTENT”. They do not intersect each other at all, i.e., they are parallel.
- (iii) If there is infinite number of common solutions, is said to be “CONSISTENT” and “DEPENDENT”. They coincide with each other.

S. NO	SOLUTION	LINEAR EQUATION	POINT	DIAGRAM
1	ONE	CONSISTENT & INDEPENDENT	GRAPHICALLY MEET AT ONE POINT	
2	NO SOLUTION	INCONSISTENT	GRAPHICALLY LINES ARE PARALLEL	
3	INFINITE	CONSISTENT & DEPENDENT	GRAPHICALLY LINES COINCIDE	

