

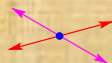
Chapter 04

LINEAR EQUATIONS IN TWO VARIABLES

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.

The above can be shown as follows:

SI NO	SOLUTION	LINEAR EQUATION	POINT	DIAGRAM
1	One	Consistent	Graphically meet at one point.	
2	No solution	Inconsistent	Graphically lines are parallel.	
3	Infinite	Dependent	Graphically lines are coincide.	