CHAPTER 03

Pair of Linear Equations in Two Variables

Solution of pair of linear equations in two variables:

A solution to a system of linear equations, $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ means to find the values of variables, which satisfy both the equations.

Example:

Consider the following system of linear equations.

$$x + 3y = 5 \rightarrow (1)$$

$$7x - 8y = 6 \rightarrow (2)$$

Equation (1) of L.H.S

Put $x = 2 \& y = 1$

L.H.S = $2 + 3(1)$

$= 2 + 3 = 5 = \text{R.H.S}$

Equation (2) of L.H.S

Put $x = 2 \& y = 1$

L.H.S = $7(2) - 8(1)$

$= 14 - 8 = 6 = \text{R.H.S}$

$\therefore$ L.H.S = R.H.S $\therefore$ L.H.S = R.H.S

Thus, $x = 2 \& y = 1$, which satisfy both the equations is said to be the solution of the system of linear equations.