

Chapter 04

LINEAR EQUATIONS IN TWO VARIABLES

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 $x = 2$ & $y = 1$

$$\begin{aligned} \text{L.H.S} &= 2 + 3(1) \\ &= 2 + 3 = 5 = \text{R.H.S} \end{aligned}$$

$\therefore \text{L.H.S} = \text{R.H.S}$

Equation(2) of L.H.S

Put $x = 2$ & $y = 1$

$$\begin{aligned} \text{L.H.S} &= 7(2) - 8(1) \\ &= 14 - 8 = 6 = \text{R.H.S} \end{aligned}$$

$\therefore \text{L.H.S} = \text{R.H.S}$

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