

STD - 8

Assignment - 6

Linear Equations

1. $\frac{x}{2} - \frac{2x}{5} + \frac{4x}{10} = \frac{9}{10}$ find x .

Solution:

$$\frac{5x - \cancel{4x} + \cancel{4x}}{10} = \frac{9}{10}$$

$$\frac{5x}{10} = \frac{9}{10}$$

$$\therefore x = \frac{9}{5}$$

2. $\frac{x-3}{x+5} = \frac{1}{5}$.

Solution:

$$5x - 15 = x + 5$$

$$\Rightarrow 5x - x = 5 + 15$$

$$\Rightarrow 4x = 20$$

$$\therefore x = 5$$

$$3. \frac{5x}{3} + \frac{4-x}{1} = 12.$$

Solution:

$$\frac{5}{3}x + \frac{4-x}{1} = 12$$

$$\frac{5x + 12 - 3x}{3} = 12$$

$$\frac{2x + 12}{3} = 12$$

$$2x + 12 = 36$$

$$2x = 36 - 12$$

$$2x = 24$$

$$x = \frac{24}{2} = 12$$

$$\therefore x = 12$$