

## Chapter 02

## LINEAR EQUATIONS IN ONE VARIABLE

PROCEDURE PROBLEMS BASED ON  
LINEAR EQUATIONS:

## Example- 2:

The ratio between two numbers is 5 : 3.

If each is increased by 7, the ratio becomes

3 : 2. Find the numbers?

**Solution:** Let the numbers be  $5x$  and  $3x$

Such that their ratio is 3 : 2

$$\therefore \text{By given data : } \frac{5x+7}{3x+7} = \frac{3}{2}$$

$$\Rightarrow 2(5x+7) = 3(3x+7)$$

$$\Rightarrow 10x+14 = 9x+21$$

$$\Rightarrow 10x-9x = 21-14$$

$$\therefore \boxed{x=7}$$

$\therefore$  Two numbers are 35 and 21.