LINEAR EQUATION IN ONE VARIABLE

An equation is a statement in which two algebraic expressions are equal.
Ex: 4x - 3 = 5 here x is variable and 3,5 are constants

An equation which occurs with one variable of first degree is called a linear equation in one variable. Ex x15=+ 0

An equation which occurs with two variables of first degree is called a linear equation in two variable. Ex xy+ 1= 0

- A linear equation has only one solution, which is called its root .
- An equation remains unaltered on:
  1) Adding the same number to both sides of it.
  2) Subtracting the same number from both sides of it.
  3) Multiplying both sides of it by the same number.
  4) Dividing both sides of it by the same number.

SOLVING A LINEAR EQUATION

(i) • Simplifying all brackets, fractions, etc., if required

(ii) • Bring all the terms containing the variables on one side and all the constant terms on the other side.

(iii) • Solve the equation, opbtained in step(2) , to get the value of its variable.

TO SLOVE PROBLMES BASED ON LINEAR EQUATION

- Read the problem carefully and find out the given and the unknown.
- Assume the variable (unknown) as x.
- According to the problem, set up two equations in terms of x and the known values
- Solve the equation to obtain the value of unknown.

NOTE

Consecutive integers, natural numbers and the whole numbers are taken as x, x+1, x+2,……

LINEAR EQUATION IN ONE VARIABLE

- Consecutive even integers , natural numbers and the whole numbers differ by 2 and so are taken as x, x+2, x+4,……
  Consecutive odd integers, natural numbers and the whole numbers also differ by 2 and so are taken as x, x+2,x+4,……
  Consecutive multiples of 3 in integers, natural numbers and the whole numbers also differ by 3 and so are taken as x, x+3,x+6,……
  Speed= Distance Travelled / Time Taken
  Dividend = (Quotient ×Divisor) + Remainder