

Chapter 05

QUADRATIC EQUATIONS

Algebra Equation:

When expression is equated to zero or one expression is equated to another expression than the result would be an equation.

Eg: $ax - bx^2 = 0$; $2x - 3 = 0$; $ax^2 + bx = cx^3 - d$

Roots of equation/zeroes of equation:

- The values of variables, which when substitute in equation satisfy the equation are said to be zeros/ roots of equation.

Eg: $x^2 - 16 = 0$, when we put $x = 4$ or -4 then L.H.S = R.H.S, So $x = 4$ & -4 are the two roots of equation

$$x^2 - 16 = 0$$

Polynomial:

- It is an algebraic expression containing any number of terms (remember that number of terms in any of the polynomial must be finite)

Eg: $a_0x^n + a_1x^{n-1} + a_2x^{n-2} + \dots + a_n$ is a polynomial where $a_0, a_1, a_2, \dots, a_n$ are constants and x is variable, n is a whole number.

Eg: $ax^3 + bx^2 + cx$