

Chapter 04

QUADRATIC EQUATIONS

Quadratic Expression:

If $a \neq 0$, b , c are real numbers then $ax^2 + bx + c$ is called a “Quadratic Expression” in ‘ x ’.

Examples:

Variables: $x, y, z, t, \dots$ (choose any one).

a (or) b (or) c = Real numbers (choose any one).

$\dots, -2, -1, 0, 1, 2, 3, \dots$ (choose any one).

$a \neq 0 \Rightarrow$ choose ‘ a ’ value except ‘0’.

Form of Quadratic Expression:

$2x^2 - 2x - 4$, which is in the form of $ax^2 + bx + c$, $a \neq 0$ called Quadratic expression.

Examples:

$$2) 3t^2 + 10t - 25 \quad 3) z^2 - 3z \quad 4) 2y^2 - 2$$

Compare with below expressions

$$2) at^2 + bt + c \quad 3) az^2 + bz \quad 4) ay^2 + c$$

Note:

In Quadratic expression $a \neq 0$ but b, c may be zero.