

## Maths Assignment 3

### Class 10

- Q1. Find the zeroes of the following quadratic polynomial and verify the relationship between the zeroes and the coefficients
- $t^2 - 15$
  - $6x^2 - 3 - 7x$
- Q2. Find a quadratic polynomial, the sum and product of whose zeroes are respectively
- $\sqrt{2}$ ,  $\frac{1}{3}$
  - $0$ ,  $\sqrt{5}$
- Q3. If  $(x+a)$  is a factor of the polynomial  $2x^2 + 2ax + 5x + 10$ , find the value of 'a'.
- Q4. If  $\frac{2}{3}$  and  $-3$  are the roots of the quadratic equation  $ax^2 + 7x + b = 0$  then find the values of a and b.
- Q5. If one zero of the polynomial  $(a^2 + 9)x^2 + 13x + 6a$  is a reciprocal of the other, find the value of a.
- Q6. Divide  $p(x)$  by  $g(x)$ , where  $p(x) = x + 3x^2 - 1$  and  $g(x) = 1 + x$ .
- Q7. What real number should be subtracted from the polynomial  $(10x^2 - 14x + 3x^3 + 9)$  so that  $(3x - 2)$  divides it exactly.