

Class – 10<sup>th</sup>

Worksheet-04

Chapter-3

Polynomials

Subject Maths

Date: \_\_ / \_\_ / \_\_

Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the coefficients.

1.  $x^2 - 2x - 8$

2.  $4s^2 - 4s + 1$

3.  $6x^2 - 3 - 7x$

Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively. (Q4 to Q6)

4.  $\frac{1}{4}, -1$

5.  $\sqrt{2}, \frac{1}{3}$

6.  $0, \sqrt{5}$

7. Divide  $3x^2 - x^3 - 3x + 5$  by  $x - 1 - x^2$ , and verify the division algorithm.

8. Divide  $3x^3 + x^2 + 2x + 5$  by  $1 + 2x + x^2$ .

9. Divide  $2x^2 + 3x + 1$  by  $x + 2$

10. Find all the zeroes of  $2x^4 - 3x^3 - 3x^2 + 6x - 2$ , if you know that two of its zeroes are  $\sqrt{2}$  and  $-\sqrt{2}$ .