

Class – 10th

Worksheet-05

Chapter-3

Polynomials

Subject Maths

Date: __ / __ / __

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

1. 1, 1

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

3. 4, 1

Divide the polynomial $p(x)$ by the polynomial $g(x)$ and find the quotient and remainder in each of the following : (Q8-Q9)

4. $p(x) = x^3 - 3x^2 + 5x - 3$, $g(x) = x^2 - 2$

5. $p(x) = x^4 - 3x^2 + 4x + 5$, $g(x) = x^2 + 1 - x$

Check whether the first polynomial is a factor of the second polynomial by dividing the second polynomial by the first polynomial:

6. $t^2 - 3$, $2t^4 + 3t^3 - 2t^2 - 9t - 12$

7. $x^2 + 3x + 1$, $3x^4 + 5x^3 - 7x^2 + 2x + 2$

8. On dividing $x^3 - 3x^2 + x + 2$ by a polynomial $g(x)$, the quotient and remainder were $x - 2$ and $-2x + 4$, respectively. Find $g(x)$.