

TEST
POLYNOMIALS

(Class X)

M.M. : 15

Time: 30 min

1. From the given graph, write the number of zeroes of the polynomial. (1)



2. For what value of k , -4 is a zero of the polynomial $x^2 - x - (2k + 2)$? (2)

3. Write a quadratic polynomial whose zeroes are 2 and -5 . (2)

4. Check whether the first polynomial is a factor of the second polynomial by applying division algorithm:

$x^2 - 2$, $x^3 - 3x^2 + 5x - 3$. (3)

5. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - x - 4$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta} - \alpha\beta$. (3)

6. Find the zeroes of the polynomial $p(x) = x^2 + 2\sqrt{2}x - 6$ and verify the relationship between the zeroes and their coefficients. (4)