

Delhi Public School, Jammu
April, 2025
Assignment-2

Class:-X

Sub:- Mathematics

Topic:- Polynomials (Ch-2)

1. Find degrees and zeroes of polynomial:-
(i) $2x + 3$. (ii) $100x^2 - 81$. (iii) $4x^2 - 7$. (iv) $6x^2 - 3 - 7x$
2. Find number of zeroes from given graph of
(i) $x - 3$. (ii) $x^2 + 1$
3. Find zeroes and verify relation between coefficient and zeroes:-
(i) $6x^2 - 3 - 7x$ (ii) $x^2 - 2x - 8$ (iii) $6x^2 + x - 12$
4. Find quadratic polynomial whose sum and product respectively of zeroes are:-
(i) $\sqrt{2}$ and $\frac{1}{3}$ (ii) $0, \sqrt{5}$ (iii) $4, \frac{1}{4}c$
5. If α and β are zeroes of polynomials $f(x) = x^2 + 3x - 1$
(i) $\alpha^2 + \beta^2$ (ii) $\alpha^3 + \beta^3$ (iii) $\alpha^3\beta + \beta^3\alpha$
6. If α and β are zeroes of polynomials $f(x) = x^2 + kx - 1$ such that sum of zeroes is equal to product of zeroes, find k
7. If one zero of polynomial $3x^2 + kx - 1$ is equal and opposite to other, find k .
8. Find quadratic polynomial whose zeroes are
(i) $\frac{2}{3}$ and $\frac{3}{4}$ (ii) $2\sqrt{3}$ and $5\sqrt{3}$. (iii) $2 + \sqrt{5}$ and $2 - \sqrt{5}$
9. If α and β are zeroes of polynomials $f(x) = x^2 - p(x+1) - c$, show that $(\alpha + 1)(\beta + 1) = 1 + c$
10. Find K if $p(x) = Kx + 2$; and $x = 2$ is zero of $p(x)$.