

Polynomials Worksheet Class 9

1. Find a cubic polynomial with the sum, sum of the product of its zeroes is taken two at a time, and product of its zeroes as 3, -1 and -3 respectively.
2. If the zeros of the polynomial $f(x) = 2x^3 - 15x^2 + 37x - 30$, find them.
3. Find the condition that the zeroes of the polynomial $f(x) = x^3 + 3px^2 + 3qx + r$ may be in A.P.
4. Find the zeros of the following quadratic polynomials and verify the relationship between the zeros and the coefficients: $5y^2 + 10y$
5. Find the quadratic polynomial whose zeros are $\frac{2}{3}$ and $-\frac{1}{4}$. Verify the relation between the coefficients and the zeros of the polynomial.
6. Find the quadratic polynomial, sum of whose zeros is 8 and their product is 12. Hence, find the zeros of the polynomial.
7. If $(x + a)$ is a factor of the polynomial $2x^2 + 2ax + 5x + 10$, find the value of a .
8. Find a cubic polynomial whose zeros are 2, -3 and 4.
9. Find a cubic polynomial with the sum, sum of the product of its zeros taken two at a time, and the product of its zeros as 5, -2 and -24 respectively.
10. Verify division algorithm for polynomials $f(x) = 8 + 20x + x^2 - 6x^3$ and $g(x) = 2 + 5x - 3x^2$.