

Concept_Grade-9_Polynomials

Basic Polynomials

1. Write the zeroes of the polynomial $p(x) = x(x - 2)(x - 3)$.
2. If $p(x) = x^2 - 3x + 2$, then what is the value of $p(0) + p(2)$?
3. Classify the following as linear, quadratic and cubic polynomials:
 - (a) $x^2 + x$
 - (b) $x - x^3$
 - (c) $1 + x$
 - (d) $7x^3$
4. Find the value of the polynomial $p(x) = x^3 - 3x^2 - 2x + 6$ at $x = \sqrt{2}$
5. If $y = 2$ and $y = 0$ are the zeroes of the polynomial $f(y) = 2y^3 - 5y^2 + ay + b$, find the value of a and b .
6. If $f(x) = 3x + 5$, evaluate $f(7) - f(5)$
7. If $f(x) = x^4 - 4x^3 + 3x^2 - 2x + 1$, then check whether $f(0) \times f(-1) = f(2)$ is true or not.
8. If $f(x) = x^3 - 3x^2 + 3x - 4$, find $f(2) + f(-2) + f(0)$.
9. If $f(x) = 5x^2 - 4x + 5$, find $f(1) + f(-1) + f(0)$.
10. If $f(x) = x^2 - 5x + 7$, find $f(2) - f(-1) + f(\frac{1}{3})$.
11. Find the value of the polynomial $x^2 - 3x + 6$ at
 - a) $x = \sqrt{2}$
 - b) $x = 3$

