



ST. LAWRENCE HIGH SCHOOL



TOPIC – Polynomials

Subject : Mathematics

Class-9

F. M. 15

WORKSHEET NO. - 18

First term

Date: 22.03.2021

Q.1) Choose the correct option:

(1x15=15)

- i) Which of the following expressions is a linear polynomial?
a) $x^3 + 2x$ b) $x^2 + 1$ c) $3x + 5$ d) $\sqrt{x} + 1$
- ii) Which of the followings is a quadratic polynomial?
a) $x\sqrt{x} + 5$ b) $(x+1)(x+3)$ c) $x^4 + x^2 + 1$ d) $(\sqrt{x})^2 + 1$
- iii) The polynomial $8x^3 - 4x^2 - 2x + 1$ is
a) divisible by $x - 1$ b) divisible by $2x + 1$ c) divisible by $x+2$ d) divisible by $2x+3$
- iv) If the polynomial $x^3 + 6x^2 + 12x + 9$ is divided by $x+3$, then the remainder will be
a) 0 b) 1 c) -1 d) 2
- v) In the polynomial $f(x)$ if $f(-\frac{1}{5}) = 0$, then one factor of the polynomial $f(x)$ will be
a) $5x - 1$ b) $5x + 1$ c) $x - 1$ d) $x + 5$
- vi) The zeroes of the polynomial $x^2 + x$ are
a) 0, 1 b) 0, -1 c) 0, 2 d) 1, 2
- vii) If the polynomial $x^2 - ax - bx + k$ is divisible by $x - a$, then the value of k will be
a) $a + b$ b) ab c) $a^2 + b^2$ d) 0
- viii) If one of the factor of the polynomial $6x^2 + 17x + k$ be $(3x + 1)$, then the value of k will be
a) 1 b) 4 c) 3 d) 5
- ix) If the polynomial $2x^4 + 3x^3 + 2x^2 + kx + 6$ is divided by $(x + 2)$ the remainder is 12. Then the value of k is
a) 4 b) 5 c) 6 d) 8
- x) The root of the linear polynomial equation $f(x) = 3x + 1$ is
a) $\frac{1}{3}$ b) $-\frac{1}{3}$ c) 1 d) 3
- xi) If $f(x) = x^4 - 2x^3 + x^2 - 2x + 6$, then value of $\frac{f(0)}{f(1)}$ is
a) $\frac{3}{2}$ b) $\frac{2}{3}$ c) 0 d) $\frac{1}{3}$
- xii) If $f(x) = \frac{3x-2}{2x-3}$, then which of the following relation is correct?
a) $f(x) \cdot f(\frac{1}{x}) = 1$ b) $f(x) + f(\frac{1}{x}) = 0$ c) $f(x) - f(\frac{1}{x}) = 1$ d) None of these
- xiii) The degree of $x^{11} - 5x^8y^6 + 6x^7y^8 + y^{13}$ is
a) 11 b) 15 c) 14 d) 13
- xiv) If $f(x) = \frac{b-c}{(x-b)(x-c)} + \frac{c-a}{(x-c)(x-a)} + \frac{a-b}{(x-a)(x-b)}$, then the value of $f(0)$ is
a) 1 b) 2 c) 0 d) $a + b + c$
- xv) If the expression $2x^3 + 2ax - b = 0$ is divisible by $x^2 - 3x + 2$, then
a) $a=7, b=12$ b) $a = -7, b = 12$ c) $a = -7, b = -12$ d) $a=7, b = -12$

-Chaitali Roy