TOPIC –Polynomial &Factorisation

Subject : Mathematics   Class-9   First TermF. M. 15

WORKSHEET NO. - 19   Solutions   Date: 27.03.2021

Q.1)   Choose the correct option: **(1x15=15)**

i) When $kx^3 + 9x^2 + 4x - 10$ is dividedby (x+1) the remainder is 2. Then the value of k is

a)-7

ii) If $y = f(x) = \frac{x+1}{x-1}$ then the value of f(y) is

c) x

iii) What number should be subtracted from the expression $2x^3 - 5x^2 + 5x$ so that (2x-3) will be factor of the expression

a)3

iv)What number should be added with the expression $4x^3 - 8x^2 + 3x$, so that (2x+1) will be a factor of the expression

c)4

v)When the expressions $x^3 - kx^2 + x + 6$ and $2x^3 - x^2 - (k+3)x - 6$ are divided by (x – 3), the remainder are same. Then the value of k is

a)1

vi) If the polynomials $f(x) = x^3 - kx^2 + x + 6$ and $g(x) = x^3 - kx^2 + x + 6$, be such that f(a) = 0 but g(a) $\neq$ 0, then (x – a) is a factor of

c) f(x)g(x)

vii)If $36 - 4x^2 = (6 + kx)(6 - 2x)$ then the value of k is

a)   2

viii)If $x^4 - 81 = (x - 3)(x + 3)(x^2 + k)$, then k =

d)9

ix) Sum of the factors of $a^2 - 5a - 150$ is

a)   2a - 5

x)The value of $(15^3 + 10^3)/(15^2 - 10^2)$ is

c)35

xi)If$x^3 - 0.125 = (x - 0.5) (x^2 + 0.5x + k)$ then the value of k is

b) 0.25

xii)If a=1, b=2, c=3 then the value of $(a^3 + b^3 + c^3 - 3abc)/[(ab + bc + ca) - (a^2 + b^2 + c^2)]$ is

b) -6

xiii)If $2x^2 + px - 14 = (x - 2)(2x + q)$ is an identity then the value of p and q is

b) p=3, q=7

xiv) The sum of the factors of $a^2 - b^2 - c^2 + 2bc$ is

c) 2a

xv)The value of $8^3 - 5^3 - 3^3$ is

b)360

-Chaitali Roy