

CLASS IX- MATHEMATICS

POLYNOMIALS

ASSIGNMENT-2

MULTIPLE CHOICE QUESTION - 2.1

- Factors of $(42 - x - x^2)$ are:
(A) $(x - 7)(x - 6)$ (B) $(x + 7)(x - 6)$ (C) $(x + 7)(6 - x)$ (D) $(x + 7)(x + 6)$
- Factors of $\left(x^2 + \frac{x}{6} - \frac{1}{6}\right)$ are :
(A) $\frac{1}{6}(2x + 1)(3x + 1)$ (B) $\frac{1}{6}(2x + 1)(3x - 1)$ (C) $\frac{1}{6}(2x - 1)(3x - 1)$ (D) $\frac{1}{6}(2x - 1)(3x + 1)$
- Factors of polynomial $x^3 - 3x^2 - 10x + 2x$ are :
(A) $(x - 2)(x + 3)(x - 4)$ (B) $(x + 2)(x + 3)(x + 4)$
(C) $(x + 2)(x - 3)(x - 4)$ (D) $(x - 2)(x - 3)(x - 4)$
- If $(x + a)$ is a factor of $x^2 + px + q$ and $x^2 + mx + n$ then the value of a is :
(A) $\frac{m-p}{n-q}$ (B) $\frac{n-q}{m-p}$ (C) $\frac{n+q}{m+p}$ (D) $\frac{m+p}{n+q}$

SUBJECTIVE QUESTION - 2.2

- Factorise : $8x^3 + 16 - 9$.
- Factorise : $x^4 + x^3 - 7x^2 - x + 6$.
- Factorise : $9z^3 - 27z^2 - 100z + 300$.
- Determine whether $x - 3$ is a factor of polynomial $p(x) = x^3 - 3x^2 + 4x - 12$.
- Using factor theorem, prove that $p(x)$ is divisible by $g(x)$ if $P(x) = 4a^4 + 5x^3 - 12x^2 - 11x + 5$, $g(x) = 4x + 5$.
- Determine if $(x + 1)$ is a factor of $x^3 - x^2 - (2 - \sqrt{2})x + \sqrt{2}$.
- $x^3 - 23x^2 + 142x - 120$.
- $x^3 + 13x^2 + 32x + 20$.
- $2x^3 + y^2 - 2y - 1$.
- $4z^3 + 20z^2 + 33z + 18$.
- $x^4 + 5x^2 + 4$.
- $x^3 - 10x^2 - 53x - 42$.