

Polynomials

Question 1.

For a polynomial $p(x)$, $x-2$ is a factor, so $p(2)$ is _____

- (a) -1
- (b) 0
- (c) -2
- (d) 2

Answer: (b) 0

Question 2.

A polynomial with one degree is called:

- (a) Linear polynomial
- (b) Quadratic polynomial
- (c) Monomial
- (d) Binomial

Answer: (a) Linear polynomial

Question 3.

$\sqrt{3}$ is a polynomial of degree:

- (a) 2
- (b) 0
- (c) 1
- (d) $\frac{1}{2}$

Answer: (b) 0

Question 4.

A polynomial of degree 5 in x has at most

- (a) 5 terms

- (b) 4 terms
- (c) 6 terms
- (d) 10 terms

Answer: (c) 6 terms

Question 5.

If $x + 2$ is a factor of $x^3 - 2ax^2 + 16$, then value of a is

- (a) 3
- (b) 1
- (c) 4
- (d) 2

Answer: (b) 1

Question 6.

If $3 + 5 - 8 = 0$, then the value of $(3)^3 + (5)^3 - (8)^3$ is

- (a) 260
- (b) -360
- (c) -160
- (d) 160

Answer: (b) -360

Question 7.

The value of k for which $x - 1$ is a factor of the polynomial $4x^3 + 3x^2 - 4x + k$ is :-

- (a) 3
- (b) 0
- (c) 1
- (d) -3

Answer: (d) -3

Question 8.

Evaluate $(11)^3$

- (a) 1313
- (b) 1331
- (c) 3131
- (d) 3113

Answer: (b) 1331

Question 9.

Factoring $3x^2 - 5x + 2$

- (a) $(3x-2)(x-1)$
- (b) $(x+2)(3x-1)$
- (c) $(3x+2)(x-1)$
- (d) $(x-2)(3x+1)$

Answer: (a) $(3x-2)(x-1)$

Question 10.

$x-a$ is a factor of $p(x) = ax^2 + bx + c$. Which of the following is true?

- (a) $p(a) = 2$
- (b) $p(a) = 0$
- (c) $p(2) = 1$
- (d) $p(b) = 0$

Answer: (b) $p(a) = 0$

Question 11.

A binomial of degree 20 in the following is:

- (a) $20x + 1$
- (b) $\frac{x}{20} + 1$
- (c) $x^{20} + 1$
- (d) $x^2 + 20$

Answer: (c) $x^{20} + 1$

Question 12.

Degree of zero polynomial is:

- (a) 1
- (b) Any natural number
- (c) 0
- (d) Not defined

Answer: (d) Not defined

Question 13.

For a polynomial $p(x)$, $p(-1)$ and $p(2)$ are both equal to zero .So, we can conclude that,

- (a) $(x^2 + 2x - 1)$ is a factor
- (b) $(x^2 - 2x + 1)$ is a factor
- (c) $(x^2 - x - 2)$ is a factor
- (d) $(x^2 - x + 2)$ is a factor

Answer: (c) $(x^2 - x - 2)$ is a factor

Question 14.

What is the degree of a zero polynomial?

- (a) 0
- (b) 1
- (c) Any natural number
- (d) Not defined

Answer: (d) Not defined

Question 15.

The zero of the polynomial $f(x) = 2x+7$ is

- (a) $\frac{2}{7}$
- (b) $\frac{-2}{7}$
- (c) $\frac{7}{2}$
- (d) $\frac{-7}{2}$

Answer: (d) $\frac{-7}{2}$

Question 16.

Find the value of a such that $(x - 2)$ is the factor of the polynomial $x^4 + ax^3 + 2x^2 - 3x$

- (a) $a = \frac{-3}{4}$
- (b) $a = \frac{3}{4}$
- (c) $a = \frac{-9}{4}$
- (d) $a = \frac{9}{4}$

Answer: (a) $a = \frac{-3}{4}$

Question 17.

If $x + 2$ is a factor of $x^3 - 2ax^2 + 16$, then value of a is

- (a) 3
- (b) 1
- (c) 4
- (d) 2

Answer: (b) 1

Question 18.

The value of $p(t) = 2+t+2t^2-t^3$ when $t=0$ is

- (a) 2
- (b) 1
- (c) 4
- (d) 0

Answer: (a) 2

Question 19.

$1+3x$ is a _____ polynomial.

- (a) Linear
- (b) Quadratic
- (c) Cubic
- (d) None of the above

Answer: (a) Linear

Question 20.

The value of p for which $x + p$ is a factor of $x^2 + px + 3 - p$ is:

- (a) -3
- (b) 3
- (c) 1
- (d) -1

Answer: (b) 3

Question 21.

Solution of a quadratic equation $x^2 + 5x - 6 = 0$

- (a) $x = -1, x = 6$

- (b) $x = 1, x = -6$
- (c) $x = 1$
- (d) $x = 6$

Answer: (b) $x = 1, x = -6$

Question 22.

$x^2 - x$ is _____ polynomial.

- (a) Linear
- (b) Quadratic
- (c) Cubic
- (d) None of the above

Answer: (b) Quadratic
