

Class: IX
Subject: Maths
Topic: Polynomials
No. of Questions: 20
Duration: 60 Min

Q1 If $p(3) = 0$, then a factor of $p(x)$ is

- A. $(x-3)$
- B. $(x-2)$
- C. $(x+3)$
- D. $(x+2)$

Q2 If $x^3 + 2x^2 - 6x + 9$ is divided by $x-2$, then..... Is the remainder.

- A. -13
- B. 13
- C. 9
- D. -16

Q3 The degree of the polynomial $x^3 + 3x^3 - 7x^2 + 9x + 11$ is....

- A. 1
- B. 2
- C. 3
- D. 5

Q4 If $x-2$ is a factor of $3x^4 - 2x^3 + 7x^2 - 21x + k$, then the value of,

- A. 2
- B. 9
- C. 18
- D. -18

Q5 The zero of $7x-3$ is

- A. $\frac{-3}{7}$
- B. $\frac{3}{7}$
- C. $\frac{7}{3}$
- D. $\frac{-7}{3}$

Q6 If x^2+6x+7 is divided by $x+1$, then the remainder is

- A. 1
- B. 2
- C. 5
- D. 7

Q7 Factors of $y^2+10y+21$ are.....

- A. $(y+3)$ and $(y-7)$
- B. $(y-3)$ and $(y+7)$
- C. $(y-3)$ and $(y-7)$
- D. $(y+3)$ and $(y+7)$

Q8 If $a-b=2$ and $ab=3$, then a^3-b^3

- A. 8
- B. 27
- C. 26
- D. 6

Q9 If $a = b = c$ then $a^3+b^3+c^3 - 3abc = \dots$

- A. a^3
- B. $2a^3$
- C. $3a^3$
- D. 0

Q10 If one factor of the polynomial $x^3+4x^2-3x-18$ is $x+3$, then the other factor is....

- A. x^2+x
- B. x^2+x+6
- C. x^2+x-6
- D. x^2-x+6

Q11 If (x^3+28) is divided by $(x+3)$, then the remainder is

- A. 0
- B. 1
- C. -1
- D. 2

Q12.... Should be added to x^3-76 so that the resulting polynomial is divisible by $x-4$

- A. 5
- B. -5
- C. 12
- D. $-5x+7y$

Q13 If $25x^2-49y^2$ has one factor $(5x-7y)$, then the other factor is....

- A. $7x+5y$
- B. $-7x-5y$
- C. $5x+7y$
- D. $-5x+7Y$

Q14 Which of the following is not a polynomial?

- A. $x^2+\sqrt{2}\sqrt{x}+3$
- B. $x^2-\sqrt{2}x+6$
- C. x^3+3x^2-3
- D. $6x+4$

Q15 The degree of the polynomial $3x^3 - x^4 + 5x + 3$ is

- A. 3
- B. -4
- C. 4
- D. 1

Q16 Zero of the polynomial $p(x) = a^2x$, $a \neq 0$ is

- A. $X=0$
- B. $X=1$
- C. $X=-1$
- D. $a=0$

Q17 Which of the following is a term of a polynomial?

- A. $2x$
- B. $\frac{3}{x}$
- C. \sqrt{x}
- D. $x\sqrt{x}$

Q18 If $p(x) = 5x^2 - 3x + 7$, then $p(1)$ equals

- A. -10
- B. 9
- C. -9
- D. 10

Q19 Factorisation of $x^3 + 1$ is

- A. $(x+1)(x^2 - x + 1)$
- B. $(x+1)(x^2 + 1)$
- C. $(x+1)(x^2 + x + 1)$
- D. $(x - 1)(x^2 - x - 1)$

Q20 If $x + y + 2 = 0$, $x^3 + y^3 + 8$ equals

- A. $(x + y + 2)^3$
- B. Zero
- C. $6xy$
- D. $-6xy$

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