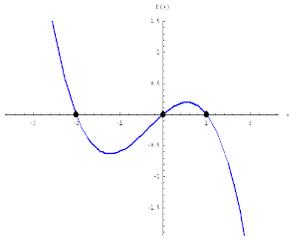


Class: 10
Subject: Math's
Topic: Polynomials
No. of Questions: 20

Q.1 Find the number of zeroes of $P(x)$



Q.2 Find the zeroes of a polynomial $x^2+7x+10$

Q.3 Find the zeroes of the polynomial $p(x)=x^2-3$

Q.4 Find the zeroes of the polynomial $p(x)=6x^2-3-7x$ and verify the relationship between them.

Q.5 Find the quadratic polynomial, the sum and product of zeroes are -3 and 2 respectively.

Q.6 Find the zeroes of the polynomial $p(x)=2x^3-5x^2-14x+8$ and find the relationship between them.

Q.7 Verify 3, -1, -1/3 are the zeroes of the cubic polynomial $p(x)=3x^3-5x^2-11x-3$

Solution: Yes, 3, -1 -1/3 are the zeroes of $p(x)$

Q.8 If the sum of the product of zeroes is -1, sum and product of zeroes are 3 and -3 respectively, find the cubic polynomial.

Q.9 Find the factors of $4s^2-4s+1$

Q.10 Divide $p(x)=x^4-5x+6$ by $g(x)=2-x^2$ and find the quotient and remainder.

Q.11 On dividing x^3-3x^2+x+2 by a polynomial $g(x)$, the quotient and remainder were $(x-2)$ and $(-2x+4)$ respectively. Find $g(x)$

Q.12 Factorize $p(x) = 2x^3 + x^2 - 2x - 1$

Q.13 If $x + y + z = 0$, then show that $x^3 + y^3 + z^3 = 3xyz$

Q.14 The polynomial $x^4 - 6x^3 + 16x^2 - 25x + 10$ is divided by another polynomial $x^2 - 2x + k$, the remainder is $x + a$, find k and a

Q.15 Give possible expression for the length and breadth of the rectangle having area $25a^2 - 35a + 12$

Q.16 Find the value of k in $p(x) = kx^2 - \sqrt{2}x + 1$ if $(x - 1)$ is a factor of $p(x)$

Q.17 Find all the zeroes of $2x^4 - 3x^3 - 3x^2 + 6x - 2$ if you know that two of the zeroes are $\sqrt{2}$ and $-\sqrt{2}$

Q.18 Find a cubic polynomial with the sum, sum of the product of its zeroes and the product of its zeroes is $2, -7, -14$ respectively.

Q.19 A polynomial $p(x) = 3x^4 - 4x^3 - 3x - 1$ is divided by $(x - 1)$ and the remainder comes out to be -5 , find the quotient.

Q.20 Using factor theorem determine whether $g(x)$ is a factor of $p(x)$ in $p(x) = x^3 - 4x^2 + x + 6$ and $g(x) = x - 3$