

# CLASS X GUESS PAPER MATHS

1. Is  $X=1$  a zero of polynomial  $x^3 - x^2 - x + 1$ .
2. Write the value of 'k' for which  $x=2$  is a zero of polynomial  $x^2 - 2k + 2$ .
3. What is the sum of Zeroes of quadratic polynomial  $2x^2 - 3x - 5$ .
4. What is the product of Zeroes of quadratic polynomial  $3x^2 + 11x - 6$ .
5. Is  $x^2 + 2\sqrt{x} + 4$ , a polynomial.
6. If  $x=4$ , is a zero of the polynomial  $x^2 - 5x + 4$ , write a factor of the given polynomial.
7. What is the zero of the polynomial  $ax + b$ .
8. Write the quadratic polynomial, the sum and product of whose zeroes are 1 and -2 respectively.
9. Graph of a linear polynomial is a straight line. If points  $(1, -1)$ ,  $(2, 1)$ ,  $(\frac{3}{2}, 0)$  lie on the this graph of polynomial, write the zero of the polynomial.
10. Write the quadratic polynomial, the sum and product of whose zeroes are 0 and -15 respectively.
11. Write the degree of polynomial  $p(x) = x^2 - 2x + x^3 + 8$ .
12. Write the degree of polynomial obtained by adding the two polynomials  $p(x) = 2x^2 + 3x - 5$  and  $q(x) = x^3 - 2x^2 + 4$ .
13. Find the zeroes of the given quadratic polynomial :-  $x^2 - 2x - 8$ .
14. The zeroes of quadratic polynomial are -3 & 2, write the polynomial.
15. Check which one of 2 and -2 is zero of the polynomial  $x^2 - 5x + 6$  ?
16. Show the polynomial  $x^2 + 6x + 10$  has no zero.
17. If  $(x - a)$  is a factor of the polynomial  $x^3 - ax^2 + x - 2$ , find the value of 'a'.
18. Find the zeroes of the polynomial  $x^2 - 3x - 4$ .
19. Check whether the polynomial  $x^2 + 4x + 5$  has zeroes, if yes find zeroes of the polynomial.
20. Find the third zero of the polynomial  $x^3 - x^2 - 2x + 2$  if two of its zeroes are  $\sqrt{2}$  and  $-\sqrt{2}$ .

21. Find the zeroes of the polynomial  $2x^2 - 5x + 2$ .
22. Find the quotient on dividing  $p(x)$  by  $g(x)$  where  $p(x) = x^4 + x^3 - 9x^2 - 3x + 18$ ,  $g(x) = x^2 - 3$ .
23. Find the zeroes of the polynomial  $x^2 - x - 2$  and verify the relationship between the zeroes and their coefficients.
24. Find the zeroes of the polynomial  $2x^2 - 7x + 6$  and verify the relationship between the zeroes and their coefficients.
25. On dividing a polynomial  $6x^3 + 10x^2 - 3x - 5$  by another polynomial  $g(x)$ , the quotient and remainder were  $3x + 5$  and  $6x + 10$  respectively. Find  $g(x)$ .
26. Find all the zero of the polynomial  $x^4 - 7x^2 + 12$  if two of its zeroes are  $\sqrt{3}$  and  $-\sqrt{3}$ .
27. Find all the zero of the polynomial  $x^3 - x^2 - 5x + 5$  if one of its zero is 1.
28. If  $(x + a)$  is a factor of the polynomial  $x^2 + px + q$  and  $x^2 + lx + m$  prove that  $-a = \frac{m - q}{l - p}$ .
29. By applying division algorithm, check whether the polynomial  $g(x) = 2 + x$  is a factor of the polynomial  $p(x) = x^4 + x^3 + 5x + 6$ .
30. Find the zeroes of the polynomial  $2x^2 - 9$  and verify the relationship between the zeroes and their coefficients.
31. Find all the zeroes of the polynomial  $3x^4 - 15x^3 + 16x^2 + 10x - 12$  if two of its zeroes are  $\sqrt{\frac{2}{3}}$  and  $-\sqrt{\frac{2}{3}}$ .
32. On dividing  $2x^3 - 3x^2 + 6x + 7$  by another polynomial  $g(x)$ , the quotient and remainder were  $2x + 5$  and  $10x - 33$  respectively. Find  $g(x)$ .
33. On dividing  $3x^3 + 4x^2 + 5x + 10$  by another polynomial  $g(x)$ , the quotient and remainder were  $3x + 10$  and  $16x - 20$  respectively. Find  $g(x)$ .
34. Find all the zeroes of the polynomial  $2x^4 - 10x^3 + 5x^2 + 15x - 12$  if two of its zeroes are  $\sqrt{\frac{3}{2}}$  and  $-\sqrt{\frac{3}{2}}$ .
35. Find the value of 'p' and 'q' so that 1, -2 are the zeroes of the polynomial  $x^3 + 10x^2 + px + q$ .
36. If the polynomial  $2x^3 + bx^2 + 3x - 5$  and  $x^3 + x^2 - 4x + b$  leave the same remainder when divided by  $x - 2$ . Find the value of 'b'.

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