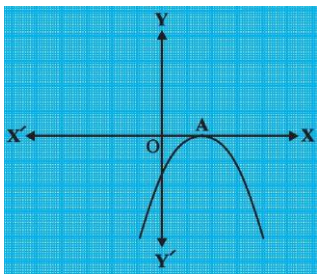
CLASS X : CHAPTER - 2
POLYNOMIALS

1. The value of k for which (–4) is a zero of the polynomial $x^2 – x – (2k + 2)$ is
   (a) 3 (b) 9 (c) 6 (d) –1

2. If the zeroes of the quadratic polynomial $ax^2 + bx + c$, $c \neq 0$ are equal, then
   (a) c and a have opposite sign (b) c and b have opposite sign
   (c) c and a have the same sign (d) c and b have the same sign



3. The number of zeroes of the polynomial from the graph is
   (a) 0 (b) 1 (c) 2 (d) 3

4. If one of the zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is
   (a) 10 (b) –10 (c) 5 (d) –5

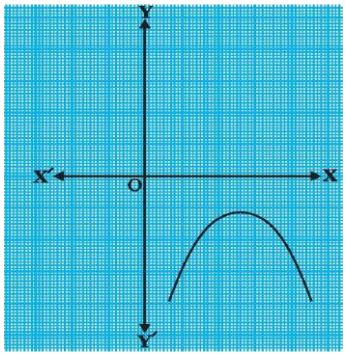
5. A quadratic polynomial whose zeroes are –3 and 4 is
   (a) $x^2 – x + 12$ (b) $x^2 + x + 12$ (c) $2x^2 + 2x – 24$. (d) none of the above.

6. The relationship between the zeroes and coefficients of the quadratic polynomial $ax^2 + bx + c$ is (a) $\alpha + \beta = \frac{c}{a}$ (b) $\alpha + \beta = \frac{-b}{a}$ (c) $\alpha + \beta = \frac{-c}{a}$ (d) $\alpha + \beta = \frac{b}{a}$

7. The zeroes of the polynomial $x^2 + 7x + 10$ are
   (a) 2 and 5 (b) –2 and 5 (c) –2 and –5 (d) 2 and –5

8. The relationship between the zeroes and coefficients of the quadratic polynomial $ax^2 + bx + c$ is (a) $\alpha.\beta = \frac{c}{a}$ (b) $\alpha.\beta = \frac{-b}{a}$ (c) $\alpha.\beta = \frac{-c}{a}$ (d) $\alpha.\beta = \frac{b}{a}$

9. The zeroes of the polynomial $x^2 – 3$ are
   (a) 2 and 5 (b) –2 and 5 (c) –2 and –5 (d) none of the above



10. The number of zeroes of the polynomial from the graph is
    (a) 0 (b) 1 (c) 2 (d) 3

11. A quadratic polynomial whose sum and product of zeroes are –3 and 2 is
    (a) $x^2 – 3x + 2$ (b) $x^2 + 3x + 2$ (c) $x^2 + 2x – 3$. (d) $x^2 + 2x + 3$.

12. The zeroes of the quadratic polynomial $x^2 + kx + k$, $k \neq 0$,
    (a) cannot both be positive (b) cannot both be negative
    (c) are always unequal (d) are always equal

13. A quadratic polynomial can have at most zeroes
    (a) 0 (b) 1 (c) 2 (d) 3

14. A cubic polynomial can have at most..... zeroes.
    (a) 0 (b) 1 (c) 2 (d) 3

15. Which are the zeroes of $p(x) = x^2 – 1$:
    (a) 1, –1 (b) – 1, 2 (c) –2, 2 (d) –3, 3

16.Which are the zeroes of p(x) = (x – 1)(x – 2):
(a) 1, –2 (b) – 1, 2 (c) 1, 2 (d) –1, –2

17. Which of the following is a polynomial?

(a) $x^2 - 5x + 3$

(b) $\sqrt{x} + \frac{1}{\sqrt{x}}$

(c) $x^{3/2} - x + x^{1/2}$

(d) $x^{1/2} + x + 10$

*18.*If α , $\beta$are the zeroes of the polynomials f(x) = x^2 + 5x + 8, then $\alpha+\beta$=.....

(a)5 (b) –5 (c) 8 (d) none of these

*19.*If α , $\beta$are the zeroes of the polynomials f(x) = x^2 + 5x + 8, then $\alpha\beta$=.....

(a)0 (b) 1 (c) –1 (d) none of these

20. A quadratic polynomial whose sum and product of zeroes are –3 and 4 is
(a) x^2 – 3x +12 (b) x^2 + 3x + 12 (c) $2x^2$ + x – 24. (d) none of the above.

21. A quadratic polynomial whose zeroes are $\frac{3}{5}$ and $\frac{-1}{2}$ is

(b)$10x^2$ – x – 3 (b) $10x^2$ + x – 3 (c) $10x^2$ – x + 3 (d) none of the above.

22. A quadratic polynomial whose sum and product of zeroes are 0 and 5 is
(c)x^2 – 5 (b) x^2 + 5 (c) x^2 + x – 5. (d) none of the above.

23. A quadratic polynomial whose zeroes are 1 and –3 is
(d)x^2 – 2x – 3 (b) x^2 + 2x – 3 (c) x^2 – 2x + 3 (d) none of the above.

24. A quadratic polynomial whose sum and product of zeroes are –5 and 6 is
(e)x^2 – 5x – 6 (b) x^2 + 5x – 6 (c) x^2 + 5x + 6 (d) none of the above.

25. Which are the zeroes of p(x) = x^2 + 3x – 10 :
(a) 5, –2 (b) –5, 2 (c) –5, –2 (d) none of these

26. Which are the zeroes of p(x) = $6x^2$ – 7x – 3 :
(a) 5, –2 (b) –5, 2 (c) –5, –2 (d) none of these

27. Which are the zeroes of p(x) = x^2 + 7x + 12 :
(a) 4, –3 (b) –4, 3 (c) –4, –3 (d) none of these

28. If the sum of the zeroes of the polynomial $3x^2$ – kx + 6 is 3, then the value of k is:
(a) 3 (b) –3 (c) 6 (d)

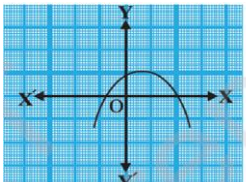
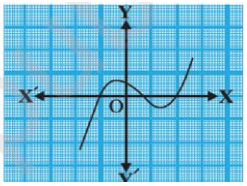
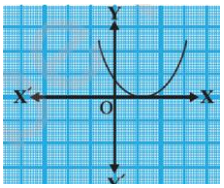
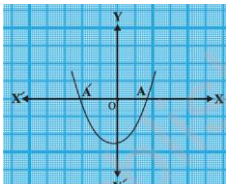
29 A real numbers a is called a zero of the polynomial f(x), then
(a) f(a) = –1 (b) f(a) = 1 (c) f(a) = 0 (d) f(a) = –2

30. Which of the following is a polynomial:
(a) $x^2 + \frac{1}{x}$ (b) $2x^2 - 3\sqrt{x} + 1$ (c) $x^2 + x^{-2} + 7$ (d) $3x^2 - 3$

31. Number of zeroes of a polynomial of degree n is

(a) equal to n (b) greater theen n (c) less then n (d) less then or equal to n.

32.Which of the following is not a grph of a quadratic polynomials?

33. A polynomial of degree 0 is called a ……. polynomial.
(a) linear (b) constant (c) quadratic (d) cubic

34. A polynomial p(x) = ax + b of degree 1 is called a …….. polynomial.
(a) linear (b) constant (c) quadratic (d) cubic

35 A polynomial $p(x) = ax^2 + bx + c$ of degree 2 is called a …….. polynomial.
(a) linear (b) constant (c) quadratic (d) cubic

36 A polynomial $p(x) = ax^3 + bx^2 + cx + d$ of degree 3 is called a ……polynomial.
(a) linear (b) constant (c) quadratic (d) cubic

37. If $p(x)$ and $g(x)$ are any two polynomials with $g(x) \neq 0$, then we can find polynomials $q(x)$ and $r(x)$ such that $p(x) = g(x) \times q(x) + r(x)$,where

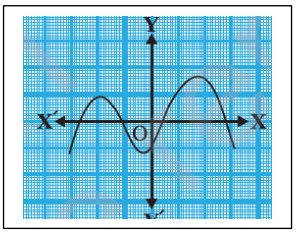
(a) degree of $r(x)$ < degree of $g(x)$ (b) degree of $r(x)$ > degree of $g(x)$

(c) degree of $r(x)$ =degree of $g(x)$ (d) none of these

38. Which of the following is true:

(a) Dividend = Divisor × Quotient + Remainder
(b) Divisor = Dividend × Quotient + Remainder
(c) Remainder = Divisor × Quotient + Dividend
(d) none of these

39. The number of zeroes of the polynomial from the graph is
(a) 0 (b) 1 (c) 2 (d) 3



40 The number of zeroes of the polynomial from the graph is
(a) 0 (b) 1 (c) 2 (d) 3