

Choose the correct answer.

- $\frac{9x^2}{x^3 - 1}$ is
(a) improper fraction (b) proper fraction (c) polynomial (d) equation
- $\frac{x^2 - 3}{3x + 1}$ is
(a) polynomial (b) equation (c) improper fraction (d) proper fraction
- $x^3 + 2x^2 - 3x + 5$ is
(a) an equation (b) a polynomial (c) proper fraction (d) improper fraction
- An open sentence formed by using the sign of equality "=" is called
(a) an identity (b) a polynomial (c) an equation (d) none of these
- Partial fraction of $\frac{ax + b}{(cx + d)^2} =$
(a) $\frac{A}{cx + d} + \frac{B}{(cx + d)^2}$ (b) $\frac{A}{cx + d} + \frac{Bx + C}{(cx + d)^2}$ (c) $\frac{Ax + B}{cx + d} + \frac{C}{(cx + d)^2}$ (d) none of these
- Partial fraction of $\frac{7x + 25}{(x + 3)(x + 4)} =$
(a) $\frac{3}{x} + \frac{5}{x + 4}$ (b) $\frac{6}{x + 4} + \frac{5}{(x + 4)^2}$ (c) $\frac{4}{x + 3} + \frac{3}{x + 4}$ (d) none of these
- A fraction in which the degree of the numerator is less than degree of the denominator is called
(a) polynomial (b) equation (c) proper fraction (d) improper fraction
- The quotient of two polynomials $\frac{P(x)}{Q(x)}$ where $Q(x) \neq 0$ with no common factor is called a
(a) an expression (b) rational fraction (c) equation (d) identity
- $(x + 3)(x + 4) = x^2 + 7x + 12$ is
(a) quadratic equation (b) linear equation (c) cubic equation (d) identity
- Partial fraction of $\frac{1}{(x^2 + 1)(x + 1)} =$
(a) $\frac{A}{x^2 + 1} + \frac{B}{x + 1}$ (b) $\frac{Ax + B}{x^2 + 1} + \frac{C}{x + 1}$ (c) $\frac{A}{x^2 + 1} + \frac{Bx + C}{x + 1}$ (d) none of these
- A relation in which the equality is true only for some values of the unknown is called
(a) an identity (b) an equation (c) a polynomial (d) none of these
- A relation in which the equality is true for all values of the unknown is called
(a) an identity (b) an equation (c) a polynomial (d) none of these
- Partial fraction of $\frac{ax + b}{(cx^2 + d)^2} =$
(a) $\frac{A}{cx^2 + d} + \frac{B}{(cx^2 + d)^2}$ (b) $\frac{Ax + B}{cx^2 + d} + \frac{Cx + D}{(cx^2 + d)^2}$ (c) $\frac{Ax + B}{cx^2 + d} + \frac{C}{(cx^2 + d)^2}$ (d) none of these

14. Partial fraction of $\frac{1}{x^3 - 1} =$
 (a) $\frac{A}{x+1} + \frac{B}{x^2 - x + 1}$ (b) $\frac{A}{x-1} + \frac{B}{x^2 + x + 1}$ (c) $\frac{A}{x-1} + \frac{Bx+C}{x^2 + x + 1}$ (d) none of these
15. Partial fraction of $\frac{x^3 - 1}{(x+2)(x+3)} =$
 (a) $\frac{A}{x+2} + \frac{B}{x+3}$ (b) $\frac{A}{x+2} + \frac{Bx+C}{x+3}$ (c) $\frac{Ax+B}{x+2} + \frac{Cx+D}{x+3}$ (d) none of these
16. $\frac{3x^2 + 1}{x-2}$ can be written as
 (a) $\frac{A}{x-2}$ (b) $\frac{Ax+B}{x-2}$ (c) $3x+6 + \frac{13}{x-2}$ (d) none of these
17. A fraction in which the degree of the numerator is greater than or equal to the degree of denominator is
 (a) a proper fraction (b) an improper fraction (c) an equation (d) an identity
18. Expressing a rational fraction as a sum of partial fraction is called
 (a) partial fraction (b) partial fraction resolution (c) both of above (d) none of these
19. Partial fraction of $\frac{x^2 + 1}{(x+1)(x-1)} =$
 (a) $\frac{2}{x+1} - \frac{4}{x-1}$ (b) $\frac{2}{x+1} + \frac{4}{x-1}$ (c) $1 - \frac{1}{x+1} + \frac{1}{x-1}$ (d) none of these
20. When a rational fraction is separated into partial fractions, the result is
 (a) an equation (b) non equation (c) identity (d) none of these

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