Unique Paper Code: MATH/2026/EXP/7/0517

Year: 2026 Chapter: Algebraic Expressions Class: 7 S.No.: 0517

Instructions:

1. This test contains 15 multiple-choice questions.
2. Each question has 4 choices. Choose the correct one.
3. Marks will be awarded for correct answers only.

Algebraic Expressions

1. The product of a monomial $-3x^2y$ and a binomial $(2xy - 5y^2)$ is:
   (a) $-6x^3y^2 + 15x^2y^3$
   (b) $6x^3y^2 - 15x^2y^3$
   (c) $-6x^2y^2 + 15x^2y^2$
   (d) $-x^3y^2 + 8x^2y^3$

2. The sum of $7a^2 - 3ab + b^2$, $-2a^2 + ab - 4b^2$, and $a^2 + 2ab + 3b^2$ is:
   (a) $6a^2$
   (b) $6a^2 + ab$
   (c) $10a^2 + 6ab + 8b^2$
   (d) $6a^2 - ab$

3. Which of the following pairs are unlike terms?
   (a) $0.5m^2n$ and $\frac{2}{4}nm^2$
   (b) $-7pqr$ and $3qpr$
   (c) $4x^2y^2$ and $4x^2y$
   (d) 8 and $-8a^0$

4. The perimeter of a triangle is $15x + 12$. If two sides are $4x + 5$ and $5x - 3$, the third side is:
   (a) $6x + 10$
   (b) $6x + 4$
   (c) $14x + 2$
   (d) $24x + 14$

5. Simplify: $2[3p - \{4q - (5p - 6q)\}] - (p - 2q)$
   (a) $5p - 6q$
   (b) $11p - 18q$
   (c) $5p + 18q$

(d) $11p + 6q$

6. If $A = 5x - 3y + 2$ and $B = 2x + 4y - 5$, then $2A - 3B$ equals:

   (a) $4x - 18y + 19$

   (b) $4x + 18y - 19$

   (c) $16x - 6y + 19$

   (d) $4x - 6y + 19$

7. The expression $\frac{5x}{2} - \frac{3y}{4} + 7$ has how many terms?

   (a) 2

   (b) 3

   (c) 4

   (d) 5

8. What must be added to $9m^2 - 4mn + n^2$ to get $3m^2 + 2mn - 5n^2$?

   (a) $-6m^2 + 6mn - 6n^2$

   (b) $12m^2 - 2mn - 4n^2$

   (c) $-6m^2 - 6mn - 6n^2$

   (d) $6m^2 + 6mn - 6n^2$

9. The coefficient of xy in $3x^2y - \frac{2xy}{5} + 7xy^2 - 4$ is:

   (a) 3

   (b) $-\frac{2}{5}$

   (c) 7

   (d) Cannot be determined

10. A boy had Rs.$(15x + 40)$. He spent Rs.$(7x - 15)$ on a book and Rs.$(3x + 10)$ on snacks. Money left is:

    (a) Rs.$(5x + 45)$

    (b) Rs.$(25x + 65)$

    (c) Rs.$(5x + 15)$

    (d) Rs.$(5x + 35)$

11. The simplified form of $0.2a^2b - 0.5ab^2 + 0.8a^2b + 0.3ab^2$ is:

    (a) $1.0a^2b - 0.2ab^2$

    (b) $1.0a^2b + 0.8ab^2$

    (c) $0.6a^2b - 0.2ab^2$

    (d) $0.6a^2b + 0.8ab^2$

12. Which of the following is a trinomial with no constant term?

(a) $x^2 + 2x + 1$

(b) $3p^2 - 5pq$

(c) $4m - 3n + 0$

(d) $a^2 + ab + b^2$

13. The sum of $8p^2q - 3pq^2$ and the difference between $5p^2q + 2pq^2$ and $p^2q - pq^2$ is:

(a) $12p^2q - 2pq^2$

(b) $12p^2q + 4pq^2$

(c) $12p^2q - 4pq^2$

(d) $4p^2q + 6pq^2$

14. If the side of a square is $(3x - 4)$ units, its perimeter is:

(a) $3x - 4$ units

(b) $6x - 8$ units

(c) $9x - 12$ units

(d) $12x - 16$ units

15. Identify the incorrect statement about $4 - 2x^2 + \frac{3x}{5}$:

(a) The constant term is 4.

(b) The coefficient of x is $\frac{3}{5}$.

(c) $-2x^2$ and $\frac{3x}{5}$ are like terms.

(d) It has three terms.