



STANDARD 8TH: CHAPTER 6

Factorisation of Algebraic Expressions

Q1. Choose the correct alternative.

1. State true or false:
Factorization of $-3a^2 + 3ab + 3bc$ is $3a(-a - b - c)$.
 - a) True
 - b) False
2. Common factor of $11pq^2, 121p^2q^3, 1332p^2q$ is _____.
 - a) $121p^2$
 - b) $11pq^2$
 - c) $11pq$
 - d) $121pq$
3. The LCM of $10a, 20b,$ and $30c$ is
 - a) $60abc$
 - b) $20abc$
 - c) $30a$
 - d) $40b$
4. The common factor of $8a^2b^4c^2, 12a^4bc^4$ and $20a^3b^4$ is
 - a) $4abc$
 - b) ab
 - c) $8abc$
 - d) $4a^2b$
5. Factorization of $17p^2q - 102pq^2$ is
 - a) $17pq(p - 6q)$
 - b) $17pq(p + 6q)$
 - c) $17pq(p - 4q)$
 - d) $17pq(p + 4q)$
6. Result of $15(a^3b^2c^2 - a^2b^3c^2 + a^2b^2c^3) \div 3abc$
 - a) $abc(a - b + c)$
 - b) $5abc(a + b + c)$
 - c) $5abc(a - b + c)$
 - d) *None of these*

7. Simplify: $26xy(x + 5)(y - 4) \div 13x(y - 4)$
- $2x(y + 5)$
 - $xy(2 + y)$
 - $2y(x + 5)$
 - $xy(y - 4)$
8. Choose the factor of $15x^2 - 26x + 8$ from the following
- $(3x - 4)(5x + 2)$
 - $(3x - 4)(5x - 2)$
 - $(3x + 4)(5x - 2)$
 - $(3x + 4)(5x + 2)$
9. Find and correct the errors in the mathematical statement $x(x^2 - 3) = x^3 + 3$
- $x(x^2 - 3) = x^3 - 3$
 - $x(x^2 - 3) = x^3 - 3x^2$
 - $x(x^2 - 3) = x^3 - 3x$
 - $x(x^2 - 3) = x^3 + 3$
10. How many factors does $x^9 - x$ have
- 4
 - 9
 - 8
 - 5

Q2. Solve the following

- One of the factors of $m^2 - 256$ is $m - 4$ which are rest factors?
- What is the common factor of $72x^3y^4z^4$, $120z^2d^4x^4$, and $96y^3z^4d^4$
- A rectangular garden is being separated into 6 equal sections for different types of flowers. The area of the garden is $(12x + 30)$ square meters. What is the area of each section of the garden?
- Ralph spends $14z + 21$ dollars every week. How much money does he spend daily?

5. Factorise $4(x + y)^2 - 28(x^2 - y^2) + 49(x - y)^2$

6. Solve: $\frac{4x^2 - 25y^2}{2x + 5y}$

7. If one of the factors of $(5x^2 + 70x - 160)$ is $(x - 2)$, find the other factor.

8. Factorise $11x^2 + 33x - 110$

9. Factorize: $3p(p^2 - 7) - 4(7 - p^2)$

10. Factorize: $x^3 - 8y^3 - 64z^3 - 24xyz$