

Algebraic Expressions

Chapter 11: Algebraic Expressions · Topic 1

Key Concept

Terms in an expression, like $3x$, $-2y$, or 5 , are separated by $+$ or $-$ signs, and like terms (same variable and power) can be combined.

Adding or subtracting expressions involves combining like terms, like $(3x+2y) + (x-y) = 4x+y$.

Multiplying expressions, like $(x+2)(x+3)$, involves distributing each term, giving $x^2+3x+2x+6 = x^2+5x+6$.

Mastering algebraic expression operations is essential for solving equations and more advanced algebra topics.

Quick Revision Notes

- Terms are separated by $+$ or $-$ signs.
- Like terms have the same variable and power.
- Adding expressions combines like terms.
- $(3x+2y)+(x-y) = 4x+y$.
- Multiplying expressions distributes each term.
- $(x+2)(x+3) = x^2+5x+6$.
- This is essential for solving equations.
- It prepares for advanced algebra.

Practice Questions

- 1 Simplify $(2x+3y) + (x-2y)$.
- 2 Multiply $(x+1)(x+4)$.
- 3 Simplify $6a - 2a + 3b$.
- 4 Distribute $3(2x-5)$.
- 5 Solve two algebraic simplification problems.
- 6 Explain like terms in your own words.