

Algebra 2

4-01 Add, Subtract, and Multiply Polynomials (4.2)

Adding and subtracting polynomials

- Add or subtract the _____ of the terms with the _____ power.
- Called _____ like terms.

Simplify $(5x^2 + x - 7) + (-3x^2 - 6x - 1)$

$(3x^3 + 8x^2 - x - 5) - (5x^3 - x^2 + 17)$

Multiplying polynomials

- Use the _____ property

Simplify $(x - 3)(x + 4)$

$(x + 2)(x^2 + 3x - 4)$

$(x - 1)(x + 2)(x + 3)$

Special Product Patterns

Sum and Difference: $(a - b)(a + b) = \underline{\hspace{2cm}}$

Square of a Binomial: $(a \pm b)^2 = \underline{\hspace{2cm}}$

Cube of a Binomial: $(a \pm b)^3 = \underline{\hspace{2cm}}$

Simplify $(x + 2)^2$

$(x - 3)^2$