

# Algebra 1B Unit 06: Polynomials and Factoring

Content Area: **Math**  
Course(s): **Algebra I B**  
Time Period: **Semester 2**  
Length: **6 cycles**  
Status: **Published**

## Unit Introduction

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## Standards

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MA.A-APR.A.1	Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.
MA.A-SSE.A.1a	Interpret parts of an expression, such as terms, factors, and coefficients.

## Essential Questions

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- Can two algebraic expressions that appear to be different be equivalent?
- How are properties of real numbers related to polynomials?

## Content

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- Addition and Subtraction of Polynomials
- Factoring  $ax^2 + bx + c$
- Factoring Special Cases
- Factoring  $x^2 + bx + c$
- Multiplying and Factoring
- Multiplying Binomials
- Multiplying Special Cases
- Supplemental Factoring Completely (2 Days)

## Skills

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- Adding and Subtracting Monomials
- Adding and Subtracting Polynomials
- Classifying Polynomials
- Factoring a Difference of Two-Squares
- Factoring a Polynomial Completely

- Factoring by Grouping
- Factoring out the GCF
- Factoring Perfect-Square Trinomials
- Factoring Trinomials when  $a=1$
- Factoring Trinomials when  $a>1$
- Finding the Degree of a Monomial
- Finding the Greatest Common Factor
- Multiplying a Monomial and a Trinomial
- Multiplying a Trinomial and a Binomial
- Multiplying Two Binomials
- Squaring a Binomial
- Use graphing calculators and technology where appropriate
- Use relevant vocabulary, notations, and symbols when appropriate