

# Unit 09: A1 - Ch. 8 - Polynomials and Factoring

Content Area: **Math**  
Course(s): **Algebra1 CP, Algebra 1A, Algebra 1H**  
Time Period: **Marking Period 4**  
Length: **15 Days**  
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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- 8-1 Addition and Subtraction of Polynomials (1 Day)
- 8-2 Multiplying and Factoring (2 Days)
- 8-3 Multiplying Binomials (1 Day)
- 8-4 Multiplying Special Cases (1 Day)
- 8-5 Factoring  $x^2 + bx + c$  (2 Days)
- 8-6 Factoring  $ax^2 + bx + c$  (2 Days)
- 8-7 Factoring Special Cases (1 Day)
- 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