Unit 2d-Polynomials and Factoring

Content Area: **Math**
Course(s): **Algebra 1 ACC Honors**
Time Period: **Marking Period 2**
Length: **enVision Chapter 7, 16 Days**
Status: **Published**

Essential Questions

- How do you work with polynomials to rewrite expressions and solve problems?

Big Ideas

- Find greatest common factors.
- Factor polynomials.
- Factor perfect-square trinomials and differences of squares.
- Choosing a factoring method.

Technology Connection

8.1.8AP.2 : Create programs that use clearly named variables to store and modify data

Enduring Understandings

Seeing Structure in Expressions

A.SSE.A1 Interpret expressions that represent a quantity in terms of its context.★ a. Interpret parts of an expression, such as terms, factors, and coefficients. b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret P(1+r) n as the product of P and a factor not depending on P

A.SSE.A2 Use the structure of an expression to identify ways to rewrite it. For example, see x4 – y4 as (x2)2 – (y2)2, thus recognizing it as a difference of squares that can be factored as
(x2 – y2)(x2 + y2).

- Factors and the Greatest Common Factors
- Factoring by GCF
- Factoring x^2 + bx + c
- Factoring ax^2 + bx + c
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    - Choosing a Factoring Method

Arithmetic with Polynomials & Rational Expressions

A.APR.A.1 Understand that polynomials form a system analogues to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

- Adding and Subtracting Polynomials
- Multiplying Polynomials
- Special Products of Polynomials

Mathematical Practices Focus

1. Make sense of problems and persevere in solving them. Pages 267, 295, 301

2. Reason abstractly and quantitatively. Pages 259, 281, 287, 295, 301

3. Construct viable arguments and critique the reasoning of others. Pages 275

4. Model with mathematics. Pages 294

5. Use appropriate tools strategically. Pages 287

6. Attend to precision.