Unit 9 – Polynomials
Algebra I
3 Weeks

Essential Questions

- How can polynomials be simplified and applied to solve problems?
- Can two algebraic expressions that appear to be different be equivalent?
- How are the properties of real numbers related to polynomials?

Enduring Understandings

1. The properties of integers apply to polynomials.
2. Factors are a subset of a product and with the distributive property allow options in solving polynomials.
3. Multiplying and factoring polynomials are related.
4. Solving polynomials involves the reversal of operations, the distributive property and rules of exponents.

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<th>Topics (Pearson):</th>
<th>Students will know…</th>
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<td>• Standard Form</td>
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<td>(8-2) Multiplying and Factoring</td>
<td>• Factoring</td>
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<td>(8-3) Multiplying Binomials</td>
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<td>• Perfect Square Trinomial</td>
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## Algebra I
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## 21st Learning Expectations
Students will be able to…
- Employ mathematical problem solving skills effectively.
- Make decisions and solve problems in independent and collaborative settings.

## 21st Century Learning Skills
Students will be able to…
- ML #1 – Make sense of problems and persevere in solving them.
- ML #2 – Reason abstractly and quantitatively.

## Connecticut State Standards
CCSS
- A-SSE 3a. Factor a quadratic expression to reveal the zeros of a function it defines.
- A-APR 1. Understand that polynomials for a system analogous to integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract and multiply polynomials.

## Objectives
Students will be able to…
- Write polynomials in standard form.
- Classify polynomials.
- Add, subtract, and multiply polynomials.
- Expand a product of two binomials.
- Factor polynomials using the GCF, perfect square trinomials, and difference of squares.
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Assessments

- Quiz EU1 – Properties of Polynomials
- Quiz EU2 – Factoring Polynomials using GCF
- Quiz EU3 – Multiplying Binomials
- Quiz EU4 – Factoring Special Cases
- Unit Test – Polynomials

Resources

Algebra I Textbook – Pearson
Algebra Tiles