

Algebra I Honors

Unit 10: Polynomials and Factoring

Essential Understandings	<ul style="list-style-type: none"> ▪ Knowing about polynomials and how to factor them is an important algebraic skill.
Essential Questions	<ul style="list-style-type: none"> ▪ How do you add and subtract complex polynomials? ▪ How do multiply complex polynomials? ▪ How do you solve quadratic equations in factored form? ▪ How do you factor complex polynomials? ▪ How do you solve vertical motion models?
Essential Knowledge	<ul style="list-style-type: none"> ▪ Polynomials can be added and subtracted. ▪ Polynomials can be multiplied together. ▪ Quadratic equations in factored form can be solved. ▪ Factor polynomials has many steps and procedures.
Vocabulary	<ul style="list-style-type: none"> ▪ <u>Terms</u>: <ul style="list-style-type: none"> ○ Monomial, binomial, trinomial, degree, factored form, polynomial, zero-product property, factor, FOIL. ○ Factor by grouping, binomial squares, conjugate binomials, vertical motion models. ○ Leading coefficients, minimums and maximums to polynomial functions, zeros to polynomial functions.
Essential Skills	<ul style="list-style-type: none"> ▪ Add and subtract complex polynomials. ▪ Multiply complex polynomials. ▪ Know the different methods to factor polynomials. ▪ Factor and then solve quadratic equations in factored form. ▪ Understand the square of a binomial pattern. ▪ Understand the sum and difference pattern. ▪ Understand vertical motion models. ▪ Graph and interpret polynomial functions, including finding minimums, maximums, and zeros, to polynomial functions using technology.
Related Maine Learning Results	<p>D. Symbols and Expressions 1abc D. Equations and Inequalities 2b</p>
Sample Lessons And Activities	<ul style="list-style-type: none"> ▪ Students will orally respond to questions. ▪ Students will utilize worksheets and in their notes to demonstrate individual understanding of the concepts.
Sample Classroom Assessment Methods	<ul style="list-style-type: none"> ▪ Quizzes, take-home worksheets, and tests.
Sample Resources	<ul style="list-style-type: none"> ▪ <u>Publications</u>: Algebra 1 Textbook (Larson) ▪ <u>Other</u>: Graphing calculators.
Technology Link	<ul style="list-style-type: none"> ▪ http://www.brunswick.k12.me.us/curriculum