Mathematics
Algebra 1: Academic
Unit 10: Polynomials and Factoring

Essential Understandings	Knowing about polynomials and how to factor them is an important algebraic skill.
Essential Questions	- 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?
Essential Knowledge	- Polynomials can be added and subtracted. - Polynomials can be multiplied together. - Quadratic equations in factored form can be solved. - Factoring polynomials has many steps and procedures.
Vocabulary	- Terms: - monomial, binomial, trinomial, degree, factored form, polynomial, zero-product property, factor, FOIL
Essential Skills	- Add and subtract complex polynomials. - Multiply complex polynomials. - Apply different methods to factor complex polynomials. - Factor and then solve quadratic equations in factored form.

Related Maine Learning Results	Mathematics
	D. Algebra
	  Symbols and Expressions
	  D1.Students understand and use polynomials and expressions with rational exponents.
	    a. Simplify expressions including those with rational numbers.
	    b. Add, subtract, and multiply polynomials.
	    c. Factor the common term out of polynomial expressions.
	  Equations and Inequalities
	  D2.Students solve families of equations and inequalities.
	    b. Solve quadratic equations graphically, by factoring in cases where factoring is efficient, and by applying the quadratic formula.

Sample Lessons And Activities	- 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	- Quizzes - Take-home worksheets - Tests
Sample Resources	- Publications: - Algebra -Foerster

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