

Algebra 1 - Unit 5: Math - Polynomials

Content Area: **Mathematics**
Course(s): **Math 6, Generic Course**
Time Period: **Generic Time Period**
Length: **#21 days**
Status: **Published**

Established Goals/Standards

Please choose the appropriate Goals/Standards from the Standards tab above.

MA.A-SSE.A.2	Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.
MA.A-APR.B.3	Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.
MA.A-REI.B.4	Solve quadratic equations in one variable.
MA.A-REI.B.4a	Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.
MA.A-REI.B.4b	Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b .

Essential Questions

Please add your Essential Questions by clicking on the Lists tab above.

- How can factoring help solve an equation?
- How do you add, subtract, and multiply polynomials?

Enduring Understanding

Please add your Enduring Understandings by clicking on the Lists tab above.

- Factoring determines the solutions to an equation.
- Polynomials can be added, subtracted, and multiplied by following the order of operations rules specific to polynomials.

Content

Students will be able to:

- Describe and identify monomials, binomials, trinomials, polynomials and their degree
- Add, subtract, multiply, and divide polynomials.
- Factor polynomials using a variety of techniques.

- Solve quadratic equations by factoring

Vocabulary:

- Exponent
- Degree
- Monomial
- Binomial
- Trinomial
- Polynomial
- GCF
- Difference of squares
- Trinomial squares
- Standard form of a polynomial

Assessment

Resources

- Pearson textbook and online resources
- Teacher made flip-charts
- Web-based activities (mathplayground.com) (coolmath.com)
- Teacher made worksheets/assessments
- NJCTL.org (PMI math)
- Pizzazz series of worksheets