



Southmoreland School District

Algebra 2 Curriculum

Algebra 2:

Algebra 2 is designed to build upon Algebra skills linear functions progressing into quadratic functions. It reviews and builds on concepts of Algebra I, covering systems of equations, inequalities, quadratic and polynomial functions, and rational expressions. Creative approaches to problem solving, communicating mathematical ideas, and real-world problem solving will be emphasized.

Module Titles:

Module 1: Preparation for Algebra 2

Module 2: Equations and Inequalities

Module 3: Linear Relations and Functions

Module 4: Systems of Equations and Inequalities

Module 5: Quadratic Functions and Relations

Module 6: Polynomials

Module Overviews:

Module 1: Preparation for Algebra 2

This module is a review of Algebra 1 Concepts.

Module 2: Equations and Inequalities

In this module the students use formulas and solve for variables. They incorporate number properties and literal equations. It wraps up with solving Absolute Value Equations.

Module 3: Linear Relations and Functions

Students calculate rate of change, direct variation, and write linear equations in various forms. After graphing, mapping, and determining whether the relation is a function, the students transform parent functions.

Module 4: Systems of Equations and Inequalities

This module builds on linear equations into systems of equations. The students will graph and solve systems linear equations and systems of inequalities. Students will solve rational expressions.



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Module 5: Quadratic Functions and Relations

In this module the students consider quadratic functions and their solutions. They solve quadratic functions using factoring when a is not one, completing the square, and quadratic formula. The students learn that when a quadratic solution does not have a real solution they must use complex numbers in order to solve.

Module 6: Polynomials

The students add, subtract, multiply and divide polynomials. They also analyze polynomial graphs and functions, then solve the polynomial equations.