



Southmoreland School District Algebra 1A Curriculum Overview

Algebra 1A Overview:

This course is the foundation for Algebra 1. Topics of this Algebra Course will focus on simplifying square roots, exponents, simplifying and factoring polynomial expressions, relations and functions, and solving and graphing linear equations and inequalities. Students will be able to apply these concepts and relate them to real-world situations. Students enrolled in this course are required to take Algebra IB the following year.

Module Titles:

Module 1: Operations with Rational Numbers

Module 2: Exponents and Exponential Functions

Module 3: Algebraic expressions and Number Properties

Module 4: Quadratic Expressions

Module 5: Linear Equations and Functions

Module Overviews:

Module 1: Operations with Rational Numbers

In this module we will perform operations with integers, decimals and fractions. Students will also estimate and simplify radicals with and without variables

Module 2: Exponents and Exponential Functions

In this module students will learn how to apply the properties of exponents to simplify expressions.

Module 3: Algebraic expressions and Number Properties

Students will be able to translate from verbal to algebraic expressions. They will be able to solve problems following the order of operations. They will learn the sets of numbers and the properties of numbers including distributive property.

Module 4: Quadratic Expressions

The students will be able to add, subtract, multiply polynomials. They will also learn how to factor polynomial expressions. First just gcf, then quadratics when a is and isn't 1. We will also cover LCM and GCF.



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Module 5: Linear Equations and Functions

Students will be able to solve one-step and multi-step equations with variables on one or both sides of the equation. Then the students will solve equations using absolute value. The students will then be able to apply their knowledge of solving linear equations to graphing linear equations, and calculate the rate of change. They will relate direct variation to the rate of change and use arithmetic sequences with linear functions.