

Algebra I 500 curriculum map

Unit 1: Foundations of Algebra

- Real numbers and their properties
- Order of operations and evaluating expressions
- Algebraic expressions and combining like terms
- Solving linear equations and inequalities
- Graphing linear equations and inequalities

Unit 2: Functions and Relations

- Understanding functions and their properties
- Function notation and evaluating functions
- Graphing linear functions and finding slope
- Writing equations of lines in slope-intercept form
- Solving systems of linear equations

Unit 3: Polynomials and Factoring

- Adding, subtracting, multiplying, and dividing polynomials
- Factoring quadratic expressions
- Solving quadratic equations by factoring
- Using the quadratic formula
- Simplifying radical expressions

Unit 4: Exponents and Radicals

- Understanding and applying properties of exponents
- Simplifying expressions with exponents
- Simplifying and operating with radical expressions
- Rational exponents and radical equations
- Solving exponential equations

Unit 5: Algebraic Fractions and Equations

- Simplifying algebraic fractions
- Solving equations with algebraic fractions
- Solving literal equations for a specific variable

- Applications of algebraic equations and fractions
- Solving proportions and percent problems

Unit 6: Inequalities and Absolute Value

- Solving and graphing linear inequalities
- Compound inequalities and systems of inequalities
- Solving and graphing absolute value equations and inequalities
- Applications of inequalities and absolute value

Unit 7: Quadratic Functions and Equations

- Graphing quadratic functions
- Finding the vertex, axis of symmetry, and roots of a quadratic function
- Solving quadratic equations using different methods
- Quadratic inequalities and applications
- Modeling with quadratic functions

Unit 8: Data Analysis and Probability

- Collecting and organizing data
- Measures of central tendency and variability
- Graphical representations of data
- Probability and counting principles
- Making predictions and analyzing trends

This curriculum map provides a comprehensive overview of the topics typically covered in an Algebra I 500 course. However, the specific content and order may vary.