

Algebra I

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Students who are ready for Algebra I:

- Can proficiently add, subtract, multiply, and divide whole numbers, fractions, mixed numbers, and decimals
- Can convert between a fraction, decimal, and percent
- Can solve one-step equations
- Can plot points on a number line and coordinate grid
- Can perform operations with integers
- Can write an algebraic expression to solve a word problem

Concepts and skills learned in the Algebra I curriculum:

- Commutative and Associative Properties
- Order of Operations
- Solving for an Unknown with One Variable
- Distributive Property
- Cartesian Coordinates
- Graphing a Line
- Slope-Intercept Formula
- Graphing Parallel Lines and the Equation of a Line
- Graphing Perpendicular Lines
- Finding the Slope-Intercept Formula with Different Givens
- Graphing Inequalities
- Solving Simultaneous Equations by Graphing
- Solving Simultaneous Equations by Substitution
- Solving Simultaneous Equations by Elimination
- Coin Problems
- Consecutive Integers
- Multiplication and Division with Exponents
- Negative Exponents and Raising Exponents to a Power
- Addition and Multiplication of Polynomials
- Factor Polynomials
- Factor Trinomials with Coefficients
- Factor Trinomials with Negative Numbers
- Square Roots and Dividing Polynomials
- Difference of Two Squares and Oriental Squares
- Repeated Factoring of Polynomials
- Solving Equations with Factoring
- Unit Multipliers
- Square Unit Multipliers
- Metric Conversions
- Fractional Exponents
- Significant Digits and Scientific Notation
- Bases Other Than Ten
- Graphing a Circle and an Ellipse
- Graphing a Parabola and a Hyperbola