

Math 9

Sunrise Edition

Algebra 1 (Textbook and LightUnits)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Types of numbers Graphing real numbers; absolute values Real number properties; fractions Adding and subtracting fractions Adding positive and negative numbers Multiplying and dividing fractions; arithmetic with decimals Subtracting positive and negative numbers Variables, constants, and algebraic expressions Applications of positive and negative numbers Multiplying positive and negative numbers Dividing positive and negative numbers Ratios and percents	Exponents; exponents and negative signs Translating from word expressions to math expressions Operations with exponential expressions Order of operations Using parentheses to translate from word expressions to Math expressions Combining like terms Multiplying terms Dividing terms The distributive property Roots and radicals Recognizing and representing values algebraically Equations	The distributive property and division Mathematically related values Solving more complex equations Polynomials Factors and factoring Adding polynomials Greatest common factor Complex relationships between values Solving equations with fractions or decimals Subtracting polynomials Factoring the greatest common factor from a polynomial Simplifying radicals	Solving literal equations Setting up equations Simplifying radicals with variables Solving two-variable equations Multiplying binomials Graphing ordered pairs Graphing inequalities Graphing two-variable (linear) equations Graphing compound inequalities: conjunctions and disjunctions Multiplying larger polynomials Slopes of linear equation graphs Squaring binomials	The slope formula Establishing equalities using geometry or additional quantities Multiplying radicals Graphing from the slope-intercept form Mean, median, and mode Solving inequalities Including the value of items in equations Simplifying radicals with numbers and variables Multiplying sum and difference binomials Writing the equation of a graph Establishing equalities for rates and mixtures Factoring a difference of squares
Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Graphing from the x- and y- intercepts Factoring perfect square trinomials Systems of linear equations Solving systems of equations by substitution Stem-and-leaf plots Factoring trinomials in the form $x^2 + bx + c$ Direct variation: $y = kx$ Rational expressions: canceling factors Solving systems of equations by addition/elimination Reviewing uses of the negative sign Equalities between identical formulas Multiplying rational expressions	Solving systems of equations by multiplication/addition Factoring by grouping Writing a linear equation from a point and a slope Dividing rational expressions Range and standard deviation Factoring trinomials in the form $ax^2 + bx + c$ Adding and subtracting radicals Writing a linear equation from two points Equalities between interest applications Graphing linear inequalities Inverse variation: $y = kx$ Dividing a trinomial by a binomial	Factoring completely Writing equivalent rational expressions Adding and subtracting rationals with common denominators Graphing systems of linear inequalities Box-and-whisker plots and outliers Dividing polynomials with remainders Lowest common denominator Quadratic equations: solving by factoring Rational expressions: excluded values Solving applications by using systems of equations Functions Dividing larger polynomials	Quadratic equations: taking the square root of both sides Dividing radicals Adding and subtracting rationals with unlike denominators Rationalizing denominators Scatter plots Equations: completing the square Dividing polynomials with missing terms Complex rational expressions Quadratic equations: solving by completing the square The domain of a function Solving rational expressions Quadratic equations: the quadratic formula	Fractional exponents Absolute value equations Canceling in unit conversion Graphing absolute value inequalities Best fit lines and extrapolation The discriminant of a quadratic equation Multiplying and dividing with fractional exponents Longer unit conversions probability Applications using inequalities Function notation Graphing a system with an equation and an inequality