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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.1**ConnectionstoAlgebra | 2.4 Solve linear inequalities using properties of order.2.5 Solve combined linear inequalities2.6 Solve word problems that involve linear equations, formulas, and inequalities7.1 Simplify algebraic ratios.7.2 Solve algebraic proportions9.5 Decide whether a given algebraic statement is true always, sometimes, or never9.6 Distinguish between inductive and deductive reasoning9.7 Identify the hypothesis and conclusion in a logical deduction | * Variables
* Exponents
* Order of Operations
* Equations and Inequalities
* Tables and Graphs
* Intro to Functions
* Problem Solving
 | * McDougal Littell – 1
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.2****Properties** **of** **Real Numbers** | 1.1 Compare real number expressions.1.3 Understand and use the distributive, associative, and commutative properties2.4 Solve linear inequalities using properties of order2.5 Solve combined linear inequalities2.6 Solve word problems that involve linear equations, formulas, and inequalities9.2 Decide whether a solution is reasonable in the context of the original situation9.3 Use the properties of the real number system and the order of operations to justify the steps of simplifying functions and solving equations | * Number Line
* Real Numbers
* Matrices
* Distributive Property
* Probability
* Problem Solving
 | * McDougal Littell – 2
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.3****Solving** **Linear** **Equations** | 2.1 Solve linear equations2.2 Solve equations and formulas for a specified variable.3.3 Understand the concept of a function, decide if a given relation is a function, and link equations to functions.3.4 Find the domain and range of a relation | * Addition and Subtraction
* Multiplication and Division
* Multi-Step Equations
* Equations with Variables on Both Sides
* Formulas and Functions
* Rates, Ratios, and Percents
* Problem Solving
 | * McDougal Littell – 3
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.4****Graphing** **&** **Writing****Linear Equations** **&** **Functions** | 3.1 Sketch a reasonable graph for a given relationship3.2 Interpret a graph representing a given situation4.1 Graph a linear equation4.2 Find the slope, *x*-intercept, and *y*-intercept of a line given its graph, its equation, or two points on the line4.3 Write the equation of a line in slope-intercept form. Understand how the slope and *y*-intercept of the graph are related to the equation4.4 Write the equation of a line given appropriate information4.5 Write the equation of a line that models a data set and use the equation (or the graph of the equation) to make predictions4.6 Graph a linear inequality in two variables6.8 Understand and describe the relationships among the solutions of an equation, the zeros of a function, the *x*-intercepts of a graph, and the factors of a polynomial expression9.5 Decide whether a given algebraic statement is true always, sometimes, or never | * Coordinates and Scatter Plots
* Graphing Linear Equations
* Intercepts
* Slope
* Direct Variation
* Slope-Intercept
* Solving Equations Using Graphs
* Functions and Relations
* Slope-Intercept Form, Using Points
* Fitting a Line to Data
* Point-Slope Form
* Standard Form
* Problem Solving
 | * McDougal Littell – 4 & 5
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.5**Solving &Graphing Linear Inequalities | 2.1 Solve linear equations2.3 Solve equations and formulas for a specified variable2.4 Solve linear inequalities using properties of order2.5 Solve combined linear inequalities2.6 Solve word problems that involve linear equations, formulas, and inequalities | * One-Step
* Multi-Step
* Compound
* Absolute Value
* Graphing
* Stem-and-Leaf Plots, Box-and-Whisker Plots, Mean, Median, and Mode
* Problem Solving
 | * McDougal Littell – 6
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.6**Systems of Linear Equations &Inequalities | 5.1 Use a graph to estimate the solution of a pair of linear equations in two variables5.2 Use a graph to find the solution set of a pair of linear inequalities in two variables.5.3 Understand and use the substitution method to solve a pair of linear equations in two variables5.4 Understand and use the addition or subtraction method to solve a pair of linear equations in two variables5.5 Understand and use multiplication with the addition or subtraction method to solve a pair of linear equations in two variables5.6 Use pairs of linear equations to solve word problems 9.1 Use a variety of problem-solving strategies, such as drawing a diagram, making a chart, guess-and-check, solving a simpler problem, writing an equation, and working backwards9.4 Understand that the logic of equation solving begins with the assumption that the variable is a number that satisfies the equation and that the steps taken when solving equations create new equations that have, in most cases, the same solution set as the original. Understand that similar logic applies to solving systems of equations simultaneously | * Graphing
* Substitution
* Linear Combinations
* Applications
* Systems
* Problem Solving
 | * McDougal Littell – 7
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.7**Exponents&Exponential Functions | 1.4 Use the laws of exponents for rational exponents6.1 Add and subtract polynomials6.2 Multiply and divide monomials.6.3 Find powers and roots of monomials (only when the answer has an integer exponent).6.4 Multiply polynomials6.5 Divide polynomials by monomials6.6 Find a common monomial factor in a polynomial6.7 Factor the difference of two squares and other quadratics | * Multiplication Properties
* Zero and Negative
* Division Properties
* Scientific Notation
* Exponential Growth and Decay
* Problem Solving
 | * McDougal Littell – 8
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.8**Polynomials & Factoring | 6.1 Add and subtract polynomials6.2 Multiply and divide monomials.6.3 Find powers and roots of monomials (only when the answer has an integer exponent).6.4 Multiply polynomials6.5 Divide polynomials by monomials6.6 Find a common monomial factor in a polynomial6.7 Factor the difference of two squares and other quadratics 6.8 Understand and describe the relationships among the solutions of an equation, the zeros of a function, the *x*-intercepts of a graph, and the factors of a polynomial expression9.8 Use counterexamples to show that statements are false, recognizing that a single counterexample is sufficient to prove a general statement false | * Adding and Subtracting
* Multiplying
* Special Products
* Solving in Factored Form
* Factoring x2+bx+c
* Factoring ax2+bx+c
* Factoring Special Products
* Factoring Using the Distributive Property
* Problem Solving
 | * McDougal Littell – 10
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.9****Quadratic** **Equations** **&****Functions** | 8.1 Graph quadratic, cubic, and radical equations8.2 Solve quadratic equations by factoring8.3 Solve quadratic equations in which a perfect square equals a constant8.4 Complete the square to solve quadratic equations8.5 Derive the quadratic formula by completing the square8.6 Solve quadratic equations using the quadratic formula8.7 Use quadratic equations to solve word problems9.2 Decide whether a solution is reasonable in the context of the original situation | * Solving by Finding Square Roots
* Simplifying Radicals
* Graphing Quadratics
* Solving by Graphing
* Completing the Square
* Solving with the Quadratic Formula
* Applications of the Discriminant
* Graphing Quadratic Inequalities
* Comparing Linear, Exponential, and Quadratic Models
* Using graphing calculators
* Problem Solving
 | * McDougal Littell – 9
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.10****Rational****Equations** **&** **Functions** | 1.5 Use dimensional (unit) analysis to organize conversions and computations7.1 Simplify algebraic ratios7.2 Solve algebraic proportions8.5 Derive the quadratic formula by completing the square | * Ratio and Proportion
* Percents
* Direct and Inverse Variation
* Simplifying Rational Expressions
* Multiplying and Dividing Rational Expressions
* Adding and Subtracting Rational Expressions
* Dividing Polynomials
* Rational Equations and Functions
* Dimensional Analysis
* Problem Solving
 | * McDougal Littell – 11
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| **Unit** | **Standards** | **Topics** | **Reading Materials &** **Other Resources** |
| **1.11****Radicals**  | 1.2 Simplify square roots using factors8.8 Solve equations that contain radical expressions8.9 Use graphing technology to find approximate solutions of quadratic and cubic equations | * Functions Involving Square Roots
* Operations with Radical Expressions
* Solving Radical Equations
* Problem Solving
 | * McDougal Littell – 12
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