

Middle School Algebra 1 Course Outline 2008-2009

Text: Glencoe Algebra 1: Integrations, Applications, Connections

Algebra Resource Center: <http://curry.edschool.virginia.edu/k12/algebra/>

WEEK	SOL	TEXTBOOK	SUPPLEMENTS
1st Six Weeks	A.4	2.1 Rational Numbers on the Number Line 2.2 Adding and Subtracting Integers	Application: 2.2 Line Plots Matrices
	A.13	2.2 Adding and Subtracting Rational Numbers 2.3 Multiplying Rational Numbers 2.4 Dividing Rational Numbers 2.7 Square Roots and Real Numbers	Have students learn the “rules” by supplying real life examples. Manipulative Activity: Estimating Square Roots p. 118 Technology: Estimate Square Roots using TI-83
	A.2 A.3	1.1 Variables and Expressions * Patterns and Sequences (Use as Warm-up) 1.2 Order of Operations 1.3 Open Sentences	Technology: Order of Operations worksheet in Algebra Packet
	A.3	1.4 Identity and Equality Properties 1.5 The Distributive Property 1.6 Commutative and Associative Properties	Manipulative Activity: Modeling the Distributive Property (page 44) Technology: Have students determine for which operations commutative and associative properties hold true
	A.1	3.1 Writing equations 3.2 Solving Equations (+,-) 3.3 Solving Equations (x, /) 3.4 Solving Multi-Step Equations <i>NOTE: These sections do not have to be taught in isolation when using manipulatives.</i>	Manipulatives: “Hands-On Equations,” manipulative set from Algebra Portfolio Activity: Backtracking Technology: Solve Equations on Calculator
			Continue Solving Equations

WEEK	SOL	TEXTBOOK	SUPPLEMENTS
2 nd Six Weeks	A.1	3.5 Solving Eqs. w/Variables on Both Sides 3.8 Solving Equations and Formulas	Activity: Compare solving equations to solving formulas
	A.1	3.6 Ratios and Proportions 3.7 Percents	Activity: Base Ten tiles to demonstrate percent Use proportions to solve percent problems
	A.15 A.5 A.16	4.1 The Coordinate Plane 4.3 Relations 4.6 Functions	Technology: Interactive Website http://www.shodor.org/interactivate/activities/VerticalLineTest/ http://www.shodor.org/interactivate/activities/WholeNumberCruncher/
	A.15 A.5 A.16	4.4 Equations as Relations 4.8 Writing Equations from Patterns	Technology: Interactive Website http://www.shodor.org/
	A.5 A.6 A.16	4.5 Graphing Linear Equations	Activity: Relate the pattern found in previous sections to the slant (slope) of the line.
	A.6 A.5 A.8	5.1 Slope	Activity: Use TI-83 to verify equations http://www.shodor.org/interactivate/activities/SlopeSlider/ http://www.shodor.org/interactivate/activities/PositiveLinearFunct/
WEEK	SOL	TEXTBOOK	SUPPLEMENTS
3 rd Six Weeks	A.18 A.7 A.8	5.2 Direct Variation 5.3 Slope-Intercept Form 5.4, 5.5 Writing Linear Equations 12.1 Inverse Variation	Activity: Discovering Direct and Inverse Variation (portfolio)
	A.17	PS 818 Measures of Central Tendency 13.4 Measures of Variation 13.5 Box-and-Whisker Plots	Technology: Computer Activity in Portfolio on Mean, Median, and Mode
	A.17	5.7 Scatter Plots and Best-Fit Lines	Technology: Finding line of best fit on TI-83 (portfolio) Spreadsheet Activity (portfolio)
		Review for Exams	
		<i>SEMESTER EXAMS</i>	

WEEK	SOL	TEXTBOOK	SUPPLEMENTS
4 th Six Week	A.1	6.1 Solving Linear Inequalities(+,-) 6.2 Solving Linear Inequalities (x, /) 6.3 Solving Multi-Step Inequalities	
	A.9	Solving Systems of Equations by: 7.1 Graphing 7.2 Substitution	Technology: Solve systems on TI-83 using the table, graph, or CALC feature
	A.9 A.6	7.3 Elimination (Addition and Subtraction) 7.4 Elimination (Multiplication) Applications of Systems of Equations	Activity: Connecting Algebra and Geometry (portfolio) Technology: Verify Shading with TI-83
	A.10	8.1 Multiplying Monomials 8.2 Dividing by Monomials	Activity: Laws of Exponents (portfolio)
	A.11	8.3 Scientific Notation 8.4 Polynomials	Technology: Solve application problems using scientific notation on the TI-83
WEEK	SOL	TEXTBOOK	SUPPLEMENTS
5 th Six Weeks	A.11	8.5 Adding and Subtracting Polynomials 8.6 Multiplying a Polynomial by a Monomial	Activity: Use manipulatives to model adding, subtracting, and multiplying polynomials
	A.11	8.7 Multiplying Polynomials 8.8 Special Products	Activity: Manipulatives
	A.12	9.1 Factors and Greatest Common Factor 9.2 Factoring Using the Distributive Property	Activity: Modeling page 564
	A.12	9.3, 9.4 Factoring Trinomials “Special Trinomials” 9.6 Perfect Squares and Factoring	Activity: Factoring with Manipulatives (portfolio) or page 572
	A.14 A.16	9.5 Difference of Squares * Solving Equations by Factoring	Technology: Verify solutions using TI-83 (portfolio) Page 618 Family Graphs
	A.14	10.1 Graphing Quadratic Functions	Technology: Graph Quadratic Equations and look for x-intercepts (portfolio) Activity: Completing the Square Page 742

WEEK	SOL	TEXTBOOK	SUPPLEMENTS
6th Six Weeks	A.14 A.13	Solving Quadratic Equations 10.2 Graphing 10.4 Quadratic Formula	
	A.13	11.1 Simplifying Radical Expressions	
		REVIEW FOR SOL TEST	
	A.13	11.2 Operations with Radical Expressions 11.3 Radical Equations	
		<i>Review for Exams</i>	
		<i>FINAL EXAMS</i>	