



Independent School District of Boise City Curriculum Map

Accelerated Algebra 1 Mathematics

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Scope and Sequence Summary

Math Vocabulary	<i>Ongoing</i>
Intro to Algebra	Sep
Solving Equations	Oct
Polynomials	Oct
Factoring.....	Nov
Fractions in algebra	Dec
Fractions (application)	Jan
Lines, Equations, Graphs	Feb
Systems of Equations	Mar
Inequalities.....	Apr
Square Roots/Radicals	May
Quadratic Formula	May

Test

Window

Idaho State Achievement Test	
Acc Alg 1 EOC	End of 1 st Semester
ISAT	Apr-May
Accel Alg 1 EOC	End of 2 nd Semester

Accelerated Algebra 1

Scope and Sequence

Semester 1		Semester 2	
Ch 1: Introduction to Algebra		Ch 6: Fractions (6.4-6.7)	
Ch 2: Working with Real Numbers		Ch 7: Applying Fractions	
Ch 3: Solving Equations and Problems		Ch 8: Introduction to Functions	
Ch 4: Polynomials		Ch 9: Systems of Linear Equations	
Ch 5: Factoring Polynomials		Ch 10: Inequalities	
Ch 6: Fractions (6.1-6.3)		Ch 11: Rational and Irrational Numbers	
		Ch 12: Quadratic Formula (12.1, 12.3)	

**Accelerated Algebra I
Materials Needed for Common Final (EOC)**

Semester 1 –Calculator Allowed

Semester 2 – Calculator Allowed

Accelerated Algebra 1 Vocabulary List

Absolute Value
Adding Integers
Addition Property
Addition Property for Inequality
Additive Identity
Additive Inverse Property
Additive Inverses
Algebraic Expression
Associative Property
Axes
Axis of Symmetry
Base
Binomial
Coefficient
Commutative Property
Comparison Property
Complex Fraction
Composite Numbers
Compound Inequality
Conjugate
Consecutive Integers
Consistent
Constant
Coordinate
Coordinate Plane
Cross Products
Data
Defining the Variable
Degree of Monomial
Degree of Polynomial
Dependent Variable
Difference of Squares
Discriminant
Distance Formula
Distributive Property
Dividing Rational Numbers
Division Property
Division Property for Inequality
Domain
Domain
Element
Elimination
Equation
Equivalent Equation
Equivalent Expressions
Evaluate
Exponent
Extremes
Factored Form
Factoring
Factoring by Grouping
Factors
FOIL Method
Formula
Function
Functional Notation
Graph
Graph
Greatest Common Factor
Horizontal Axis
Hypotenuse
Hypothesis
Identity
Inconsistent
Independent
Independent Variable
Inequality
Integer
Inverse of a relation
Irrational Number
Isosceles Triangle
Legs
Like Terms
Linear Equation
Linear Function
Maximum
Mean
Midpoint
Minimum
Mixture Problem
Monomial
Multiplication Property
Multiplicative Identity
Multiplicative Property
Multiplying Rational Numbers
Multi-step Equations
Negative Exponent
Negative number
Number Line
Open Sentence
Opposites
Order of Operations
Ordered Pairs
Origin
Parallel Lines
Parallelogram

Accelerated Algebra 1 Vocabulary List

Percent
Percent of Decrease
Percent of Increase
Percent Proportion
Percentage
Perfect Square
Perfect Square Trinomials
Perpendicular Lines
Point-slope Form
Polynomial
Power
Power of a Monomial
Power of a Power
Power of a Product
Prime Factorization
Prime Numbers
Prime Polynomials
Principle Square Root
Product of Powers
Product Property of Square Roots
Proportion
Pythagorean Theorem
Pythagorean Triple
Quadrants
Quadratic Equation
Quadratic Formula
Quartiles
Quotient Property of Square Roots
Radical Equation
Radical Sign
Radicand
Random
Range
Rate
Rate Problem
Ratio
Rational Number
Rationalizing the Denominator
Real Number
Reciprocal
Reflexive Property
Relation
Replacement Set
Right Triangle
Rise
Roots
Run
Scale
Scientific Notation
Sequence
Set
Set-builder Notation
Similar
Simple Interest
Simplest Form
Simplest Radical Form
Slope
Slope-intercept Form
Solution
Solution Set
Solve an equation
Solving the open sentence
Square of a Difference
Square of a Sum
Square Root
Standard Form
Substitution
Substitution Property
Subtracting Integers
Subtraction Property
Subtraction Property for Inequality
Symmetric Property
Symmetry
System of Equations
System of Inequalities
Term
Transitive Property
Triangle
Trinomial
Uniform Motion
Union
Variable
Venn Diagram
Vertical Axis
Vertical Line Test
Weighted Average
Whole Number
x-axis
x-coordinate
x-intercept
y-axis
y-coordinate
y-intercept
Zero Exponent
Zero Product Property
Zeros

Accelerated Algebra 1 Content Overview

Areas of emphasis in BOLD.

The student will be able to:

- Write numbers in their increasing or decreasing order.(1)
- Simplify an expression using the order of operations.(1)
- Graph an equation's solution using a number line.(2)
- Simplify algebraic expressions using the distributive property.(2)
- **Solve an equation with rational coefficients.(3)**
- **Solve an equation illustrating the use of the distributive property and negative lead coefficients.(3)**
- **Solve an equation with variables on both sides.(3)**
- Define a variable and write an equation. Then solve it.(3)
- Solve verbal problems by translating them into equations and inequalities.(3, 10)
- Solve an equation or inequality containing rational numbers.(3, 10)
- Add or subtract polynomials.(4)
- Multiply polynomials and record the answer in simplest terms.(4)
- Find the Greatest Common Factor.(5)
- **Factor a given polynomial.(5)**
- **Factor binomials and trinomials.(5)**
- **Factor binomials and trinomials using the GCF.(5)**
- Find the solution for a quadratic equation in factored form.(5)
- Solve a rational equation.(6)
- Simplify a rational expression noting the excluded values of x.(6)
- Solve a rational equation. (Solve a proportion for the missing term).(7)
- Solve percent problems using percent equations.(7)
- Write a number in scientific notation.(7)
- **Graph and label given points on a Cartesian Coordinate system being sure to label the graph system properly.(8)**
- **Find slope given two points.(8)**
- **Create line graphs to represent data.(8)**
- **Determine the equation of a line given two points or the slope and a point. (8)**
- Solve a system of equations using graphing, substitution, linear combination methods.(9)
- Solve a linear inequality and graph it's solution using a number line.(10)
- Graph a linear inequality.(10)
- **Simplify radicals.(11)**
- **Solve an equation expressed in radical form.(11)**
- Find the distance between two given points.(11)
- Use the Pythagorean Theorem to find missing lengths.(11)

Objectives not explicitly addressed in the text.

- Evaluate algebraic expressions using a calculator.
- Find the mean, median, mode, and range of a set of values (data).
- Use the vertical line test appropriately.

Accelerated Algebra 1 Syllabus : First Semester 2010-2011

Date	Event/Sequence	Lecture/Discussion Topics	Assignments
Aug-23			
Aug-24			
Aug-25		1/2 day for students Class Admin;	
Aug-26	<i>Chapter 1:</i>	1-1: Variables	
Aug-27	<i>Introduction to Algebra</i>	1-2: Grouping Symbols	
Aug-30		1-3: Equations	
Aug-31		1-4: Translating Words into Symbols (stress vocab)	
Sep-1		1-5: Translating Sentences into Equations (stress vocab)	
Sep-2		1-6: Translating Problems into Equations	
Sep-3		1-7: A Problem Solving Plan	
Sep-6	Labor Day	Labor Day - No School	
Sep-7		1-8: Number Lines and 1-9: Opposites and Absolute Values	
Sep-8		Chapter 1 Review	
Sep-9		Chapter 1 Exam	
Sep-10	<i>Chapter 2: Working</i>	2-1: Basic Assumptions	
Sep-13	<i>with Real Numbers</i>	2-2: Addition on a Number Line, 2-3: Rules for Addition	
Sep-14		2-4: Subtracting Real Numbers	
Sep-15		2-4: Subtracting Real Numbers - Problems	
Sep-16		2-5: The Distributive Property	
Sep-17		2-6: Rules for Multiplication	
Sep-20		2-7: Problem Solving: Consecutive Integers	
Sep-21		2-8: The Reciprocal of a Real Number	
Sep-22		2-9: Dividing Real Numbers	
Sep-23		Chapter 2 Review	
Sep-24		Chapter 2 Exam	
Sep-27	<i>Chapter 3: Solving</i>	3-1: Transforming Equations: Addition and Subtraction	
Sep-28	<i>Equations and</i>	3-2: Transforming Equations: Multiplication and Division	
Sep-29	<i>Problems</i>	3-3: Using Several Transformations	
Sep-30		3-4: Using Equations to Solve Problems	
Oct-1		3-4: Using Equations to Solve Problems	
Oct-4		3-5: Equations with Variables on Both Sides	
Oct-5		3-5: Equations with Variables on Both Sides	
Oct-6		Flex Day	
Oct-7	State Workshop	State Workshop-No School	
Oct-8	State Workshop	State Workshop-No School	
Oct-11		3-6: Problem Solving: Using Charts	
Oct-12		3-6: Problem Solving: Using Charts	
Oct-13		3-7: Cost, Income, and Value Problems	
Oct-14		Chapter 3 Review	
Oct-15		Chapter 3 Exam	
Oct-18	<i>Chapter 4: Polynomials</i>	4-1: Exponents	
Oct-19		4-2: Adding and Subtracting Polynomials	
Oct-20		4-3: Multiplying Monomials	
Oct-21		4-4: Powers of Monomials	
Oct-22		4-5: Multiplying Polynomials by Monomials	

Oct-25		Flex Day	
Oct-26		4-6: Multiplying Polynomials	
Oct-27		4-7: Transforming Formulas	
Oct-28		4-8: Rate-Time-Distance Problems	
Oct-29	End of Quarter 1	4-8: Rate-Time-Distance Problems	
Nov-1		4-9: Area Problems	
Nov-2		4-9: Area Problems	
Nov-3		4-10: Problems Without Solutions	
Nov-4		Chapter 4 Review	
Nov-5	Prof. Development	No School, Professional development	
Nov-8		Flex Day	
Nov-9		Chapter 4 Exam	
Nov-10	<i>Chapter 5: Factoring</i>	5-1: Factoring Integers, 5-2: Dividing Monomials	
Nov-11	<i>Polynomials</i>	5-3: Monomial Factors of Polynomials	
Nov-12		5-4: Multiplying Binomials Mentally	
Nov-15		5-5: Differences of Two Squares	
Nov-16		5-6: Squares of Binomials	
Nov-17		5-6: Squares of Binomials	
Nov-18		5-7: Factoring Patterns	
Nov-19		5-8: Factoring Patterns	
Nov-22	Thanksgiving Holiday		
Nov-23	Thanksgiving Holiday		
Nov-24	Thanksgiving Holiday		
Nov-25	Thanksgiving Holiday		
Nov-26	Thanksgiving Holiday		
Nov-29		Flex Day since we don't administer the DMA 8 anymore	
Nov-30		Flex Day since we don't administer the DMA 8 anymore	
Dec-1		5-8: Factoring Patterns, 5-9: Factoring Patterns	
Dec-2		5-9: Factoring Patterns	
Dec-3		5-10: Factoring By Grouping	
Dec-6		5-10: Factoring By Grouping	
Dec-7		5-11: Using Several Methods of Factoring	
Dec-8		5-11: Using Several Methods of Factoring	
Dec-9		5-12: Solving Equations by Factoring	
Dec-10		5-13: Using Factoring to Solve Problems	
Dec-13		5-13: Using Factoring to Solve Problems	
Dec-14		Chapter 5 Review	
Dec-15		Chapter 5 Review	
Dec-16		Chapter 5 Exam	
Dec-17	Early Release		
Dec-20	X-mas Holiday		
Dec-21	X-mas Holiday		
Dec-22	X-mas Holiday		
Dec-23	X-mas Holiday		
Dec-24	X-mas Holiday		
Dec-27	X-mas Holiday		
Dec-28	X-mas Holiday		
Dec-29	X-mas Holiday		

Dec-30	X-mas Holiday		
Dec-31	X-mas Holiday		
Jan-3	<i>Chapter 6</i>	6-1: Simplifying Fractions	
Jan-4		6-2: Multiplying Fractions	
Jan-5		6-3: Dividing Fractions	
Jan-6		Review	
Jan-7		Test 6-1 through 6-3	
Jan-10		Review and practice/ EOC review	
Jan-11		Review and practice/ EOC review	
Jan-12		Review and practice/ EOC review	
Jan-13		Review and practice/ EOC review	
Jan-14		Review and practice/ EOC review	
Jan-17	MLK Jr. Day	No School	
Jan-18		Review and practice/ EOC review	
Jan-19	Semester Tests		
Jan-20	Semester Tests		
Jan-21	Semester Tests		

Accelerated Algebra 1 Syllabus: Semester Two 2010-2011

Date	Event Sequence	Lecture/Discussion Topics	Assignments
Jan-24	District In-service	District In-service-No School	
Jan-25	<i>Chapter 6: Fractions</i>	6-4: Least Common Denominators	
Jan-26		6-5: Adding and Subtracting Fractions	
Jan-27		6-6: Mixed Expressions	
Jan-28		6-7: Polynomial Long Division	
Jan-31		Chapter 6 Review	
Feb-1		Chapter 6 Exam (at least 6.4-6.7)	
Feb-2	<i>Chapter 7:Applying</i>	7-1: Ratios, 7-2: Proportions	
Feb-3	<i>Fractions</i>	7-3: Equations with Fractional Coefficients	
Feb-4		7-4: Fractional Equations	
Feb-7		7-4: Fractional Equations	
Feb-8		7-5: Percents	
Feb-9		7-6: Percent Problems (Percent of Change)	
Feb-10		7-7: Mixture Problems	
Feb-11		7-8: Work Problems	
Feb-14		7-7 & 7-8:Mixture and Work Problems	
Feb-15		7-9: Negative Exponents	
Feb-16		7-10: Scientific Notation	
Feb-17		Chapter 7 Review	
Feb-18		Chapter 7 Exam	
Feb-21	Presidents' Holiday	Presidents' Holiday-No School	
Feb-22	<i>Chapter 8: Introduction</i>	8-1: Equations in Two Variables, 8-2: Points, Lines, and their Graphs	
Feb-23	<i>to Functions</i>	8-3: Slope of a Line	
Feb-24		8-4: The Slope Intercept Form of a Linear Equation	
Feb-25		8-4: The Slope Intercept Form of a Linear Equation	
Feb-28		Chapter 8 Mid Chapter Test	
Mar-1		8-5: Determining the Equation of a Line	
Mar-2		8-5: Determining the Equation of a Line	
Mar-3		8-6: Functions Defined by Tables and Graphs, 8-7: Functions Defined by Equations	
Mar-4		8-8: Linear and Quadratic Functions	
Mar-7		Extra/ Relations (page 389-390)	
Mar-8		Chapter 8 Review	
Mar-9		Chapter 8 Exam	
Mar-10	<i>Chapter 9: Systems</i>	9-1: The Graphing Method	
Mar-11	<i>of Linear Equations</i>	9-2: The Substitution Method	
Mar-14		9-3: Solving Problems with Two Variables	
Mar-15		9-3: Solving Problems with Two Variables	
Mar-16		9-4: The Addition-or-Subtraction Method	
Mar-17		9-4: The Addition-or-Subtraction Method	
Mar-18		9-5: Mult. With the Addition-or-Subtraction Method	
Mar-21		9-5: Mult. With the Addition-or-Subtraction Method	
Mar-22		9-7: Puzzle Problems	9.6: Optional if time
Mar-23		9-7: Puzzle Problems	
Mar-24		Chapter 9 Review	

Mar-25	End of Quarter 3	Chapter 9 Exam	
Mar-28	Spring Break	Spring Break-No School	
Mar-29	Spring Break	Spring Break-No School	
Mar-30	Spring Break	Spring Break-No School	
Mar-31	Spring Break	Spring Break-No School	
Apr-1	Spring Break	Spring Break-No School	
Apr-4	<i>Chapter 10:</i>	10-1: Order of Real Numbers	
Apr-5	<i>Inequalities</i>	10-2: Solving Inequalities	
Apr-6		10-3: Solving Problems Involving Inequalities	
Apr-7		10-3: Solving Problems Involving Inequalities (Problems)	
Apr-8		10-4: Solving Combined Inequalities	
Apr-11		10-5: Absolute Value in Open Sentences	
Apr-12		10-5: Absolute Value in Open Sentences	
Apr-13		Chapter 10 Mid Chapter Test	
Apr-14		10-6: Absolute Value of Products in Open Sentences	
Apr-15		10-6: Absolute Value of Products in Open Sentences	
Apr-18		10-7: Graphing Linear Inequalities	
Apr-19		10-7: Graphing Linear Inequalities	
Apr-20		10-8: Systems of Linear Inequalities	
Apr-21		Chapter 10 Review	
Apr-22		Chapter 10 Exam	
Apr-25	ISAT's	ISAT's	
Apr-26	ISAT's	ISAT's (Approximate time frame: please adjust	
Apr-27	ISAT's	ISAT's your schedule accordingly.)	
Apr-28	ISAT's	ISAT's	
Apr-29	ISAT's	ISAT's	
May-2	<i>Chapter 11: Rational</i>	11-1: Properties of Rational Numbers	
May-3	<i>and Irrational Numbers</i>	11-2: Decimal Forms of Rational Numbers	
May-4		11-3: Rational Square Roots	
May-5		11-4: Irrational Square Roots	
May-6	Prof Development	Professional Development-Early Release	
May-9		11-5: Square Roots of Variable Expressions	
May-10		11-5: Square Roots of Variable Expressions	
May-11		11-6: The Pythagorean Theorem and Extra:Distance Formula (P. 535)	
May-12		11-7: Multiplying, Dividing, and Simplifying Radicals	
May-13		11-8: Adding and Subtracting Radicals	
May-16		11-9: Multiplication of Binomials Containing Radicals	
May-17		11-10: Simple Radical Equations	
May-18		Chapter 11 Review	
May-19		Chapter 11 Exam	
May-20	<i>Chapter 12: Quadratic</i>	12-1: Quadratic Equations with Perfect Squares	
May-23	<i>Functions</i>	12-3: The Quadratic Formula	
May-24		Chapter 12 - Review and Assessment	
May-25		Review and Assessment	
May-26		Review and Assessment	
May-27		Review and Assessment	
May-30	Memorial Holiday	No School	

May-31		Review and Assessment	
Jun-1	Semester Test		
Jun-2	Semester Test		
Jun-3	Semester Test		

Accelerated Algebra I

Similar Problem List (EOC)

Semester 1

Acc Alg 1 Similar Problem List Sem 1

Chapter 1	page 4	#39	
	page 7	example 3	
	page 16	#1-16	
	page 24	#1-15	Solve
Chapter 2	page 52	#1-10	
	page 68	#61-66	
	page 77	#1-12	
	page 78	#1-4	(ST)
	page 81	#19-29	
	page 85	#25-30	
Chapter 3	page 104	#29-36	
	page 109	#1-8	
	page 110	#31-44	
	page 118	#13-30	
Chapter 4	page 144	#32-39	
	page 149	#31-42	
	page 153	#1-18	
	page 157	#5-9	
	page 157	#17-20	
	page 162	#17-26	
	page 166	#1-5	
	page 168	chalkboard examples #1-3	
	page 169	#2	
Chapter 5	page 192	#47-50	
	page 196	#9-16	
	page 197	#31-40	
	page 206	#27-38	
	page 207	#45-48	
	page 210	#1-20	
	page 218	#1, 7-14	
	page 222	#1-10	
	page 228	#1-6 (Oral)	
	page 228	#7-11 (Written)	
	page 232	#1-21	
Chapter 6	page 249	#12-15	
	page 253	#25-28	
	page 256	#2-12	
	page 257	#25-29	

Accelerated Algebra I

Similar Problem List (EOC)

Semester 2

Acc Alg 1 Similar Problem List Sem 2

Chapter 1	p. 7	ex. 3, 4	Grouping Symbols
	p. 16	#1-16	Translating phrase into variable expression
	p. 17	#37-41	SOLVE
	p. 24	#1-15	Translating problem into equation
Chapter 2	p. 78	#1-4 (self-test)	Simplify order of operations
Chapter 3	p. 109	#1-6 (written ex)	Two-step equations
	p. 110	#35-44	Solve using several transformations
	p. 118	#19-24	Solve with variables on both sides
Chapter 4	p. 157	#5-20	Powers of monomials
Chapter 5	p. 212	#1-6 (Self Test)	Product as a polynomial
Chapter 7	p. 295	#1-8	Proportions
	p. 295	#21-24	Proportions with binomials
	p. 296-7	#8-12	Problem-solving with proportions
	p. 306	#27-28	Fractional equations
	p. 306	Sample problem	Solve the equation
	p. 312	#27-32	Percent problems
	p. 329	#5,9,10,11	Work problems
	p. 335	#1 (mixed review)	No restrictions
	p. 336	example 1 a & b	Scientific Notation
Chapter 8	p. 351	#1-8	Ordered pair a solution
	p. 363	#1-12	Find slope given two points
	p. 368	#9-12 (oral)	Find slope and y-intercept
	p. 368	#13-27 (written)	Use slope and y-intercept to graph
	p. 372	#1-4	Write equation given slope and y-intercept
	p. 372	#7-14	Write equation given slope and a point
	p. 372	#17-28	Write equation given two points
	p. 373	#35-36	Write equation in standard form
	p. 376	#1-6	(given as ordered pairs)
	p. 380	Oral #1-6	State the range
	p. 381	#13,14,17-20	Find the values of the given function
	p. 386-7	#7,8,19-23 (graph)	Find coord. of vertex, axis of sym, and least value
	p. 389-390	use the vertical line test to determine whether a graph or a given set of points is a function	
Chapter 9	p. 419	#1-8	Substitution method
	p. 424	#11-14	Solve, using two equations in two variables
	p. 427	#1-6	Solve by addition-or-subtraction method
	p. 432	#10-15	Solve using mult with addition-or-subtraction method
Chapter 10	p. 466	#11-19	Solve inequality and graph
	p. 467	#29-37	Solve inequality and graph
	p. 480	#9-12	Solve open sentence and graph
	p. 485	#19,20,31,32	Solve open sentence and graph
	p. 493	#13-19	Transform into an equivalent inequality and graph
Chapter 11	p. 519	#45-48	Evaluate expression
	p. 522	#1-8	Simplify irrational square root
	p. 526	#9-16	Simplify square root of variable expression
	p. 526	#27-30	Solve square root of variable expression
	p. 532	#1-10	Pythagorean Theorem
	p. 536	#1-12	Distance Formula (formula provided)
	p. 541	#1-2	Simplify radicals (like radicands only)
	p. 548	#11-16	Solve simple radical equation