



# Independent School District of Boise City Curriculum Map

## Algebra I Part 2 Mathematics

### Table of Contents

Scope and Sequence .....	2
Vocabulary List .....	3
Suggested Syllabus .....	4
Common Final Similar Problem List (EOC).....	5

### Scope and Sequence Summary

Math Vocabulary	<i>Ongoing</i>
Preparation and Review	Sept
Systems of Equations & Exp	Oct
Polynomials	Nov
Factoring	Dec
EOC Review	Jan
Quadratics	Jan
Radical Expressions	Feb
Trigonometry	March
ISAT Review	Apr
Rational Expressions	May
EOC Review	May

<u>Test</u>	<u>Window</u>
Idaho State Achievement Test	
Algebra I EOC	End of 1 <sup>st</sup> Semester
<b>ISAT</b>	Late Apr.- May
Algebra I EOC	End of 2 <sup>nd</sup> Semester

## Scope and Sequence ALGEBRA 1 Part 2

**TEXT:** Algebra 1, Prentice Hall (2009)

**Note 1: This is the second year of a two-year Algebra I course**

Following is a suggested time line with some references for usable material. There is enough flexibility in time and choice of resources to allow teacher to modify the work as necessary and still complete the scope.

1 <sup>ST</sup> SEMESTER		2 <sup>ND</sup> SEMESTER	
Unit	Topic	Unit	Topic
1 2 wks	Chap 3: Summary Review	6 2 ½ wks	Ch 10: Quadratics
2 2 wks	Chap 6: Summary Review	7 4 wks	Chap 11: Radical Expressions & Equations
3 3 wks	Chap 7: Systems of Equations	8 2 wks	Trigonometry
4 3 wks	Chap 8: Exponents	9 2 wks	ISAT Prep
5 6 wks	Chap 9: Polynomials & Factoring	10 4 wks	Chap 12: Rational Expressions
		11 1 wk	Introduction to Geometry

Resource Materials:

Textbook:

Bellman, et. al. *Algebra 1*. Prentice Hall, Boston, MA. 2009.

Smith, Charles, Dossey, Bittinger. *Algebra I*. Prentice Hall, Upper Saddle River, NJ. 2006.

Additional Resources:

Taylor, Harold and Loretta. *Developing Skills in Algebra I Book A*. Palo Alto, Ca. Dale Seymour. 1984. (DS-A)

Taylor, Harold and Loretta. *Developing Skills in Algebra I Book B*. Palo Alto, Ca. Dale Seymour. 1984. (DS-B)

Taylor, Harold and Loretta. *Developing Skills in Algebra I Book C*. Palo Alto, Ca. Dale Seymour. 1984. (DS-C)

Marcy, Steve and Janis. *Middle School Math with Pizazz C revised*. Chicago. Creative Publications, 1996. (CP-C)

Marcy, Steve and Janis. *Middle School Math with Pizazz D revised*. Chicago. Creative Publications, 1996. (CP-D)

Marcy, Steve and Janis. *Middle School Math with Pizazz E revised*. Chicago. Creative Publications, 1996. (CP-E)

Marcy, Steve and Janis. *Algebra with Pizazz revised*. Chicago. Creative Publications, 1996. (CP-A)

# VOCABULARY LIST

## ALGEBRA 1 – PART 2

Absolute value  
Base  
Power  
Exponent  
Evaluate  
Distributive property  
Equation  
Radical  
Radicand  
Rationalize  
Irrational number  
Perfect squares and cubes  
Square root  
Real number  
Rational number  
Monomial  
Binomial  
Trinomial  
Polynomial  
(Leading) coefficient  
Like terms  
Factor  
FOIL  
Simplify  
Constant  
Compound inequality  
Domain  
Range  
Inverse  
Function and function notation  
Quadratic  
Parabola  
Roots/zeros  
Percent of increase/decrease  
Proportion  
Linear Equation  
Parallel  
Perpendicular  
Slope  
Point-Slope form  
Slope-intercept  
Standard form of a line  
System of equations  
X-intercept  
Y-intercept  
Scatter plots and lines of best fit  
Box-and-Whisker plots  
Stem-and-Leaf plots  
Measures of central tendencies (mean, median and mode)  
Sine  
Cosine  
Tangent  
Trigonometry

<b>Algebra 1 Part 2 Syllabus =&gt; Semester One</b>			
<b>2010-2011</b>	<b>Event Sequence</b>	<b>Lecture/Discussion Topics</b>	<b>Assignments</b>
23-Aug			
24-Aug			
25-Aug	1/2 Day for Students	Class Admin	
26-Aug		Pre-Test	
27-Aug		Pre-Test	
Aug-30		One-Step Equations	Supplemental Wkst
Aug-31		3.1 Two-step Equations	PG 118 #1-12, PG 122 #1-20
Sep-1		3.1 Two-step Equations	PG 118 #1-12, PG 122 #1-20
Sep-2		3.2 Multit-step Equations	PG 129 #1-9,12-20
Sep-3		3.3 Variables on Both Sides	PG 136 #1-10,13-31
Sep-6	Labor Day Holiday	No School	
Sep-7		Ch 3 Review	
Sep-8		Ch 3 Test	
Sep-9		6.1 Slope	PG 313 #7-35
Sep-10		6.2 Slope-Intercept	PG 320 #1-21,41-49
Sep-13		6.2 Slope-Intercept	PG 320 #28-39,50-55
Sep-14		6.4 Standard Form	PG 333 #1-26
Sep-15		6.4 Standard Form	PG 333 #27-35 + supplemental wkst
Sep-16		7.1 Solving Systems by Graphing	PG 377 #1-12, 15-22
Sep-17		7.1 Solving Systems by Graphing	Supplemental Wkst
Sep-20		Ch 7 Review	
Sep-21		Test	
Sep-22		7.2 Solving Systems using Substitution	PG 384 #1-16
Sep-23		7.2 Solving Systems using Substitution	Practice 7.2 Wkst
Sep-24		7.3 Solving Systems using Elimination	PG 390 #1-6,9-14
Sep-27		7.3 Solving Systems using Elimination	Practice 7.3 Wkst #1-20
Sep-28		7.3 Solving Systems using Elimination	Practice 7.3 Wkst #21-45
Sep-29		Review	
Sep-30		Test	
Oct-1		FLEX DAY	
Oct-4		7.4 Applications of Linear Systems	PG 399 #1-14
Oct-5		7.5 Linear Inequalities	PG 407 #1-15
Oct-6		7.5 Linear Inequalities	PG 407 #15-22, 25-36

Oct-7	State Workshop	No School	
Oct-8	State Workshop	No School	
Oct-11		7.6 Systems of Linear Inequalities	PG 414 #1-19
Oct-12		7.6 Systems of Linear Inequalities	Supplemental Wkst
Oct-13		Review	
Oct-14		Test	
Oct-15		Flex Day	
Oct-18		8.3 Multiplication of Exponents	PG 443 #1-21,31-39
Oct-19		8.4 Power to Power	PG 449 #1-22,32-50
Oct-20		8.5 Division of Exponents	PG 456 #1-12,27-32
Oct-21		8.1 Intro to Exponents	PG 433 #1-44
Oct-22		8.2 Scientific Notation (optional)	PG 438 #1-22
Oct-25		Review	
Oct-26		Test	
Oct-27		Perimeter & Circumference	Supplemental Wkst
Oct-28		Area	Supplemental Wkst
Oct-29	End of First Quarter	Area	Supplemental Wkst
Nov-1		Area with Variables	Supplemental Wkst
Nov-2		Flex Day	
Nov-3		9.1 Adding and Subtracting Polynomials	PG 497 #21-40
Nov-4		9.1 Adding and Subtracting Polynomials	Practice Wkst 9.1
Nov-5	No School	No School	
Nov-8		9.1 Adding and Subtracting Polynomials	Supplemental Wkst
Nov-9		9.2 Monomial * Polynomial	PG 501 #1-12,27-32
Nov-10		9.2 Monomial * Polynomial	Supplemental Wkst
Nov-11		9.3 FOIL	PG 507 #5-19,30-35
Nov-12		9.3 FOIL	Supplemental Wkst
Nov-15		Review	
Nov-16		Test	
Nov-17		GCF	Supplemental Wkst
Nov-18		GCF	Supplemental Wkst
Nov-19		GCF	Supplemental Wkst
Nov-22	Thanksgiving Holiday	No School	
Nov-23	Thanksgiving Holiday	No School	
Nov-24	Thanksgiving Holiday	No School	
Nov-25	Thanksgiving Holiday	No School	
Nov-26	Thanksgiving Holiday	No School	

Nov-29		Factor Something Out (recommended)	Supplemental Wkst
Nov-30		9.5 Factoring Trinomials with +c	PG 521 #5-16 + wkst
Dec-1		9.5 Factoring Trinomials with -c	PG 521 #21-28,43-54
Dec-2		9.5 Factoring Trinomials	Practice Wkst 9.5
Dec-3		9.7 Difference of Squares	PG 531 #13-30
Dec-6		9.7 Perfect Squares	PG 531 #1-12,33-36,56-67
Dec-7		9.6 Factoring Trinomials with Leading Coefficient	PG 525 #1-12
Dec-8		9.6 Factoring Trinomials with Leading Coefficient	PG 525 #13-21
Dec-9		9.6 Factoring Trinomials with Leading Coefficient	PG 525 #22-27,33-41
Dec-10		9.6 Factoring Trinomials with Leading Coefficient	Practice Wkst 9.6
Dec-13		9.8 Factor by Grouping	PG 537 #1-16
Dec-14		Review	
Dec-15		Review	
Dec-16		Test	
Dec-17	Early Release	Flex Day	
Dec-20	X-mas Holidays	No School	
Dec-21	X-mas Holidays	No School	
Dec-22	X-mas Holidays	No School	
Dec-23	X-mas Holidays	No School	
Dec-24	X-mas Holidays	No School	
Dec-27	X-mas Holidays	No School	
Dec-28	X-mas Holidays	No School	
Dec-29	X-mas Holidays	No School	
Dec-30	X-mas Holidays	No School	
Dec-31	X-mas Holidays	No School	
Jan-3		EOC review	
Jan-4		EOC review	
Jan-5		EOC review	
Jan-6		EOC review	
Jan-7		EOC review	
Jan-10		EOC review	
Jan-11		EOC review	
Jan-12		EOC review	
Jan-13		EOC review	
Jan-14		EOC review	
Jan-17	Martin Luther King, Jr. Day	No School	

Jan-18		EOC review	
Jan-19	<b>Semester Test</b>		
Jan-20	<b>Semester Test</b>		
Jan-21	<b>Semester Test</b>		

<b>Algebra I Part 2 Syllabus =&gt; Semester Two</b>			
<b>2010-2011</b>	<b>Exam</b>	<b>Lecture/Discussion Topics</b>	<b>Assignments</b>
Jan-24	<b>District In-service</b>	<b>No School</b>	
Jan-25		10.1 Exploring Quadratic Graphs	PG 553 #1-9, 14-26
Jan-26		10.2 Quadratic Functions	PG 560 #14, 23-28
Jan-27		10.3 Solving Quadratic Equations	PG 567 #1-21
Jan-28		Review of Factoring	
Jan-31		Review Solve by Factoring	
Feb-1		10.4 Factoring to Solve Quadratic Equations	PG 574 #1-20
Feb-2		10.6 Using the Quadratic Formula	PG 588 #1-15
Feb-3		10.6 Using the Quadratic Formula	PG 588 #18-37
Feb-4		10.6 Using the Quadratic Formula	Build Wkst with KUTA software
Feb-7		Ch 10 Review	PG 607 #10-38 even, 47-54 all
Feb-8		Ch 10 Test	
Feb-9		Flex Day	
Feb-10		11.1 Simplifying Radicals (Example 1)	Build Wkst with KUTA software
Feb-11		11.1 Simplifying Radicals (Example 2)	Build Wkst with KUTA software
Feb-14		11.1 Simplifying Radicals (Example 2)	Build Wkst with KUTA software
Feb-15		11.1 Multiplying Radicals (Example 3)	Build Wkst with KUTA software
Feb-16		11.1 Simplifying Fractions in Radicals (Example 5,6)	Build Wkst with KUTA software
Feb-17		11.1 Dividing Radicals (Example 7)	Build Wkst with KUTA software
Feb-18		11.2 Adding Radicals (Example 1)	Build Wkst with KUTA software
Feb-21	<b>President's Day</b>	<b>No School</b>	
Feb-22		11.2 Adding Unlike Radicals (Example 2)	Build Wkst with KUTA software
Feb-23		11.2 Using Distributive Prop with Radicals (Example 3)	Build Wkst with KUTA software
Feb-24	(Optional)	11.2 FOIL with Radicals (Example 4)	Build Wkst with KUTA software
Feb-25		Review	
Feb-28		Quiz 11.1-11.2	
Mar-1		11.3 Solving Equations with Radicals	PG 632 #1-6,9-14,21-28
Mar-2		11.3 Identifying Extraneous Solutions	Build Wkst with KUTA software
Mar-3		3.9 Pythagorean Theorem	PG 184 #1-12,35-37
Mar-4		3.9 Story Problems with Pythagorean Thm	PG 184 #13-15,32,39-41
Mar-7		Review	

Mar-8		Review	
Mar-9		Test	
Mar-10		Distance Formula	Supplemental Wkst
Mar-11		Distance Formula	Supplemental Wkst
Mar-14		Intro to Trig - Setting up Ratios	In-class lesson
Mar-15		Trig Ratios	PG 648 #1-14 + supplemental wkst
Mar-16		Using Trig to Solve Missing Part of a Triangle	PG 648 #15-24 + supplemental wkst
Mar-17	(Optional)	Using Trig to Solve Triangles	Supplemental wkst
Mar-18	(Optional)	11.6 Angles of Elevation/Depression	PG 653 #1-4
Mar-21	(Optional)	11.6 Angles of Elevation/Depression	PG 653 #6-10
Mar-22	(Optional)	11.6 More Practice	PG 744 #49-50, PG 745 #59-62
Mar-23	(Optional)	Review	
Mar-24	(Optional)	Review	
Mar-25	(Optional) END OF 3rd QUARTER	Test	
Mar-28	<b>Spring Break</b>	<b>No School</b>	
Mar-29	<b>Spring Break</b>	<b>No School</b>	
Mar-30	<b>Spring Break</b>	<b>No School</b>	
Mar-31	<b>Spring Break</b>	<b>No School</b>	
Apr-1	<b>Spring Break</b>	<b>No School</b>	
Apr-4		ISAT REVIEW	Ratios
Apr-5		ISAT REVIEW	Percents
Apr-6		ISAT REVIEW	Proportions
Apr-7		ISAT REVIEW	Perimeter & Area
Apr-8		ISAT REVIEW	Surface Area
Apr-11		ISAT REVIEW	Mean, Median, Mode
Apr-12		ISAT REVIEW	Fractions
Apr-13		ISAT REVIEW	Decimals
Apr-14		ISAT REVIEW	Line Plots, Box & Whisker, Stem & Leaf
Apr-15		ISAT REVIEW	Volume
Apr-18		12.2 Simplifying Rational Expressions	PG 674 #1-15
Apr-19		12.2 Simplifying Rational Expressions	PG 674 #16-21,25-33,42-44
Apr-20		12.3 Multiplying Rationals	PG 679 #1-15
Apr-21		12.3 Multiplying Rationals	Build wkst with KUTA software

Apr-22		12.3 Dividing Rationals	PG 679 #16-28
Apr-25		12.3 Dividing Rationals	Build wkst with KUTA software
Apr-26		12.4 Dividing Polynomials	PG 684 #1-10
Apr-27		12.4 Dividing Polynomials	PG 684 #11-18
Apr-28		Review	
Apr-29		Quiz	
May-2		Flex Day	
May-3		12.5 + and - Rationals w/ Common Denominators	PG 689 #1-12
May-4		12.5 + and - Rationals w/ Unlike Denominators	PG 689 #13-22
May-5		12.5 + and - Rationals w/ Unlike Denominators	PG 689 #30-40
May-6		12.6 Solving Rational Equations	PG 695 #1-15
May-9		12.6 Solving Rational Equations	PG 695 #18-31
May-10		12.6 Solving Rational Equations	Practice Wkst 12.6
May-11		Review	
May-12		Review	
May-13		Test	
May-16	(Optional)	Intro To Geometry (see Geom Book ch 1)	Lines, Angles, Rays (Identify)
May-17	(Optional)	Intro To Geometry (see Geom Book ch 1)	Classify Angles
May-18	(Optional)	Intro To Geometry (see Geom Book ch 1)	Missing Angles in Triangles
May-19	(Optional)	Intro To Geometry (see Geom Book ch 1)	Identify Polygons
May-20	(Optional)	Intro To Geometry (see Geom Book ch 1)	Etc
May-23		EOC review	
May-24		EOC review	
May-25		EOC review	
May-26		EOC review	
May-27		EOC review	
May-30	<b>Memorial Holiday</b>	<b>No School</b>	
May-31		EOC review	
Jun-1	<b>Semester Tests</b>		
Jun-2	<b>Semester Tests</b>		
Jun-3	<b>Semester Tests</b>		

Alg 1 Part 2 Semester one

EOC Question	Similar Problem List	Notes
1	pg 501 16-18	GCF of 3 numbers
2	pg 502 38-39	
3	pg 526 24-27	
4	pg 526 13-18	
5	pg 531 22-26	
6	pg 521 21-25	
7	pg 531 1-6	
8	pg 433 26	
9	pg 320 45-46	write in slope intercept form
10	pg 313 12-15	
11	pg 313 12-15	
12	pg 433 17, 36	
13	pg 320 50-52	
14	pg 443 8, 11, 19	
15	pg 443 15, 17, 8	
16	pg 449 1-4	
17	pg 501 16-18	GCF of 2 monomials with variables
18	pg 502 21-24	
19	pg 450 9-11, 14	
20	pg 456 9-12	
21	pg 681 60,62	test question has more variables
22	pg 454 Quick Check 1 a + b	
23	pg 497 24, 27	
24	pg 501 1-12	
25	pg 400 9-14	
26	pg 400 9-14	
27	pg 501 13-18	
28	pg 501 7-12	
29	pg 525 1-6	
30	pg 320 36-38	
31	pg 407 11-16	
32	pg 400 9-14	
33	pg 400 9-14	
34	pg 399 1	Cup/package problem
35	pg 507 5-19	
36	pg 377 1-4	
37	pg 377 1-4	
38	pg 129 12-17	
39	pg 497 31-34	
40	pg 531 13-21	
41	pg 521 5-16	

42	pg 521	21-25	
43	pg 507	11-16	
44	pg 136	1-8	
45	pg 521	21-25	
46	pg 198	24,25,27,28	
47	pg 452	74-77	
48	pg 443	19	
49	pg 13	44-48	
50			

Alg 1 Part 2 semester two

EOC Question	Similar List	Problem	Notes
1	pg 619	1-3	
2	pg 685	28,35	
3	pg 679	25-28	
4	pg 567	10-18	
5	pg 567	10-18	
6	pg 567	10-18	
7	pg 695	7,9,15	
8	pg 674	8-11	
9	pg 567	10-18	
10	pg 679	20-23	
11	pg 679	7-12	
12	pg 674	8-11	
13	pg 689	18-22	
14	pg 574	9-14	
15	pg 695	1-5	
16	pg 574	9-14	
17	pg 625	10-14	
18	pg 625	10-14	
19	pg 619	1-4	
20	pg 184	7-11	
21	pg 184	1-6	
22	pg 689	2-12	
23	pg 689	2-12	
24	pg 619	1-4	
25	pg 620	44-48	
26	pg 620	44-48	
27	pg 619	7-12	
28	pg 625	1-6	
29	pg 625	10-15	
30	pg 632	4-5	
31	pg 632	4-5	
32	pg 186	50-55	
33	pg 625	18-21	
34	pg 620	28-31	
35	pg 186	50-55	
36	pg 575	48	
37	pg 588	1-3	
38	pg 574	5-6	
39	pg 184	14	
40	pg 574	1-2	
41	pg 684	1-6	

42	pg 674	9-15	
43	pg 588	4, 9	
44	pg 619	13-18	
45	pg 619	13-18	
46	pg 588	4, 9	
47	pg 681	60,62	test question has more variables
48	pg 648	1-6	
49	pg 648	1-6	
50	pg 648	1-6	