

# FRANKLIN-SIMPSON HIGH SCHOOL

**Course Name:**

**Unit Name: You've Got Problems? Algebra's Got Solutions!**

**Objectives:**

Unit 2 You've Got Problems? Algebra's Got Solutions!	
B.1. Mathematical Processes	a. Apply problem-solving skills (e.g., identifying irrelevant or missing information, making conjectures, extracting mathematical meaning, recognizing and performing multiple steps when needed, verifying results in the context of the problem) to the solution of real-world problems
	b. Use a variety of strategies (e.g., guess and check, draw a picture) to set up and solve increasingly complex problems
	c. Represent data, real-world situations, and solutions in increasingly complex contexts (e.g., expressions, formulas, tables, charts, graphs, relations, functions) and understand the relationships
	d. Use the language of mathematics to communicate increasingly complex ideas orally and in writing, using symbols and notations correctly
	e. Make appropriate use of estimation and mental mathematics in computations and to determine the reasonableness of solutions to increasingly complex problems
	f. Make mathematical connections among concepts, across disciplines, and in everyday experiences
	g. Demonstrate the appropriate role of technology (e.g., calculators, software programs) in mathematics (e.g., organize data, develop concepts, explore relationships, decrease time spent on computations after a skill has been established)
	h. Apply previously learned mathematical concepts in algebraic contexts
D.1. Expressions, Equations, and Inequalities	a. Solve single-step and multistep equations and inequalities in one variable
	b. Solve equations that contain absolute value
	c. Solve formulas for a specified variable
D.2. Graphs, Relations, and Functions	a. Graph linear inequalities in one variable on the real number line to solve problems
G.1 Data Relations, Probability, and Statistics	a. Identify the effect on mean, median, mode, and range when a set of data is changed

**Purpose of the Unit:**

To find equivalent equations and verify steps with properties; to solve multi-step and compound inequalities; to find mean, median, mode, and range of data

**Prerequisites:**

A.1. Skills Acquired by Students...	a. Set up and solve problems following the correct order of operations (including proportions, percent, and absolute value) with rational numbers (integers, fractions, decimals)
	f. Add, subtract, multiply, and divide rational numbers, including integers, fractions, and decimals, without calculators
C.1. Foundations	a. Evaluate and simplify expressions requiring addition, subtraction, multiplication, and division with and without grouping symbols
	b. Translate real-world problems into expressions using variables to represent values
	c. Apply algebraic properties (e.g., commutative, associative, distributive, identity, inverse, substitution) to simplify algebraic expressions

**Daily Lesson Guide**

Day	Lesson Content and Daily Focus Questions	Tasks/Procedures		Engagement	Assessment and/or Accommodations
		Knowledge or Comprehension Activities	Critical Thinking (High Yield / Literacy /LTF/etc.)		
1	<b>Solving One-step Equations (D.1.a)</b>  <b>Can I solve one-step equations?</b>	<b>Algebra I Pearson Book pg. 85 #10-48 even</b>			<b>Bell Ringer</b>  <b>Homework Check</b>  <b>Exit Slip (Algebra I Pearson Book – Lesson Check pg. 85)</b>

					Standardized Test prep worksheet (Algebra I Pearson workbook pg. 41)
2	<p><b>Solving Two-step and Multi-step Equations (D.1.a)</b></p> <p>Can I solve multi-step equations?</p>	<p><b>Algebra I Pearson Book pg. 91 #12-22 even, #26-32 even and pg. 98 #10-18 even, #22-30 even</b></p>			<p><b>Bell Ringer</b></p> <p><b>Homework Check</b></p> <p><b>Exit Slip (Algebra I Pearson Book – Lesson Check pg. 91 and 97)</b></p> <p><b>Standardized Test prep worksheet (Algebra I Pearson workbook pg. 45 and 49)</b></p>
3	<p><b>Solving Equations with Variables on Both Sides (D.1.a)</b></p> <p>Can I solve equations with variables on both sides?</p>	<p><b>Algebra I Pearson Book pg. 105-106 #10-18 even, #22-40 even</b></p>			<p><b>Bell Ringer</b></p> <p><b>Homework check</b></p> <p><b>Exit Slip (Algebra I Pearson Book – Lesson Check pg. 105)</b></p> <p><b>Standardized Test prep worksheet (Algebra I Pearson workbook pg. 53)</b></p>

4 and 5	<p><b>Literal Equations and Functions (D.1.c)</b></p> <p>Can I solve formulas for specified variables?</p>	<p><b>(Day 1)</b> Algebra I Pearson Book Pg. 112 #12-26 even, #36-40 even</p> <p><b>(Day 2)</b> *Groups based on score from Lesson Quiz</p> <p>*Intervention – reteaching work</p> <p>*On-Level – Algebra I Pearson Workbook pg. 55-56 evens only</p>	<p><b>(Day 2)</b> *Extension – Enrichment and activities page</p>		<p><b>(Day 1)</b> *Lesson Quiz (From Algebra I Pearson Teacher addition)</p> <p>Bell Ringers</p> <p>Standardized Test prep worksheet (Algebra I Pearson workbook pg. 57)</p> <p>Homework check</p>
6	Equations Review		Jeopardy Review Game (Groups)		Formative Assessment of Student Work
7	Equations Test				Summative Assessment
8	<p><b>Inequalities and Their Graphs, solving one-step inequalities (D.1.a, D.2.a)</b></p> <p>Can I solve and graph one-step inequalities?</p>	<p>Algebra I Pearson Book pg. 168 #8-11 all, pg. 174 #14-28 even, pg. 181 #8-26 even</p>			<p>Bell Ringer</p> <p>Homework check</p> <p>Exit Slip (Algebra I Pearson Book – Lesson Check pg. 174 and 181)</p> <p>Standardized Test prep</p>

					worksheets (Algebra I Pearson workbook pg. 81, 85, 89)
9 and 10	<p><b>Solving Multi-step Inequalities (D.1.a, D.2.a)</b></p> <p>Can I solve and graph multi-step inequalities?</p>	<p><b>(Day 1)</b> Algebra I Pearson Book Pg. 190 #10-40 evens</p> <p><b>(Day 2)</b> Lesson Quiz (from Algebra I Pearson Teacher addition)</p> <p>*Groups based on score from Lesson Quiz</p> <p>*Intervention – Reaching work</p> <p>*On-Level – Algebra I Pearson Workbook Pg. 91-92 evens</p>	<p><b>(Day 2)</b> *Extension – Enrichment and activities page</p>		<p><b>Factoring Trinomials Quiz (Day 1 of next lesson)</b></p> <p>Bell Ringers</p> <p>Exit Slip (Algebra I Pearson Book – Lesson Check pg. 189)</p> <p>Homework checks</p> <p>Algebra I Pearson Workbook Standardized Test Prep worksheet (pg. 93)</p>
11 and 12	<p><b>Compound Inequalities (D.1.a, D.2.a)</b></p> <p>Can I solve and graph compound inequalities?</p>	<p><b>(Day 1)</b> Algebra I Pearson Book pg. 204-205 #10-22 evens and #36</p> <p><b>(Day 2)</b> Lesson Quiz (from Algebra I Pearson</p>	<p><b>(Day 2)</b> *Extension – Enrichment and activities page</p>		<p><b>Factoring Trinomials Quiz (Day 1 of next lesson)</b></p> <p>Bell Ringers</p> <p>Exit Slip (Algebra I Pearson Book – Lesson Check pg. 204)</p>

		<p>Teacher addition)</p> <p>*Groups based on score from Lesson Quiz</p> <p>*Intervention – Reaching work</p> <p>*On-Level – Algebra I Pearson Workbook Pg. 99-100 evens</p>			<p>Homework checks</p> <p>Algebra I Pearson Workbook Standardized Test Prep worksheet (pg. 101)</p>
13	Inequalities Review		White board review (individual)		Formative Assessment of Student Work
14	Inequalities Test				Summative Assessment
15	<p>Absolute Value Equations and Inequalities (D.1.b)</p> <p>Can I solve absolute value equations?</p>	Algebra I Pearson Book pg. 211 #18-30 even			<p>Bell Ringer</p> <p>Homework check</p> <p>Exit Slip (Algebra I Pearson Book – Lesson Check pg. 210)</p> <p>Algebra I Pearson Workbook Standardized Test Prep worksheet (pg. 105)</p>

16	<b>Measures of Central Tendency and Dispersion (G.1.a)</b>  <b>Can I find the mean, median, mode, and range of specified data?</b>	<b>Algebra I Pearson Book pg. 742-743 #8-20 even</b>			<b>Bell Ringer</b>  <b>Homework check</b>  <b>Exit Slip (Algebra I Pearson Book – Lesson Check pg. 742)</b>  <b>Algebra I Pearson Workbook Standardized Test Prep worksheet (pg. 353)</b>
17	<b>Unit 1 Exam Review</b>	<b>Review Worksheets</b>			<b>Formative Assessment of Student Work</b>
18	<b>Unit 1 Exam</b>				<b>Summative Assessment</b>