

# FRANKLIN-SIMPSON HIGH SCHOOL

**Course Name:** Algebra I

**Unit Name:** Systems of Linear Equations

**Objectives:**

Unit 4 Systems of Linear Equations	
B.1. Mathematical Processes	<p>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</p> <p>b. Use a variety of strategies (e.g., guess and check, draw a picture) to set up and solve increasingly complex problems</p> <p>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</p> <p>d. Use the language of mathematics to communicate increasingly complex ideas orally and in writing, using symbols and notations correctly</p> <p>e. Make appropriate use of estimation and mental mathematics in computations and to determine the reasonableness of solutions to increasingly complex problems</p> <p>f. Make mathematical connections among concepts, across disciplines, and in everyday experiences</p> <p>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)</p> <p>h. Apply previously learned mathematical concepts in algebraic contexts</p>
D.1. Expressions, Equations, and Inequalities	<p>g. Solve systems of two equations using various methods, including elimination, substitution, and graphing with and without technology</p>
D.2. Graphs, Relations, and Functions	<p>e. Graph linear inequalities with two variables on the standard <math>(x,y)</math> coordinate plane</p> <p>g. Recognize the concept of slope as a rate of change and determine the slope when given the equation of a line in standard form or slope-intercept form, the graph of a line, two points, or a verbal description</p> <p>i. Translate between different representations of relations and functions: graphs, equations, sets of ordered pairs, verbal descriptions, and tables</p>

**Purpose of the Unit:**

To solve systems of linear equations by graphing, substitution, or elimination and apply that knowledge to real-world examples

**Prerequisites:**

Quality Core Objectives

- B.1 (a-h)
- D.1 (d, e, f)
- D.2 (b – i)
- G.1 (c, g, h)

**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 and 2	<p>Graphing and solving systems of linear equations.</p> <p>Can I solve a system of linear equations graphically?</p> <p>Can I recognize special systems?</p>	<p>Student Workbook pages</p> <p>Work from text book</p>			<p>Graphing Systems Standardized Test Prep Quiz</p> <p>Homework checks</p> <p>Bell Ringer</p>

3	<b>Review Graphing Systems of Linear Equations</b>  <b>Graphing Systems of Linear Equations Quiz</b>				<b>Bell Ringer</b>  <b>Summative Graphing Quiz</b>
4, 5, and 6	<b>Solving Systems of Linear Equations by Substitution</b>	<b>Student Workbook pages</b>  <b>Work from text book</b>	<b>Partner Teach</b>		<b>Bell Ringers</b>  <b>Summative Substitution Quiz</b>
7, 8, and 9	<b>Solving Systems of Linear Equations by Elimination</b>	<b>Student Workbook pages</b>  <b>Work from text book</b>			<b>Bell Ringers</b>  <b>Summative Elimination Quiz</b>
10	<b>Review Solving Systems of Linear Equations by Graphing, Substitution, and Elimination</b>	<b>Student Workbook pages</b>	<b>The Big Wheel Review Game</b>  <b>White Board Review in groups</b>		<b>Formative assessment of student work on white boards</b>
11	<b>Solving Systems of Linear Equations Test</b>				<b>Summative Solving Systems of Linear Equations Test</b>

<b>12 and 13</b>	<b>Application of Systems of Linear Equations</b>	<b>Student Workbook pages</b>  <b>Work from text book</b>	<b>Math Notes Organizer</b>		<b>Bell Ringer</b>  <b>Application of Systems of Linear Equations Quiz</b>
<b>14 and 15</b>	<b>Graphing Linear Inequalities in two variables</b>	<b>Student Workbook pages</b>  <b>Work from text book</b>			<b>Bell Ringer</b>  <b>Graphing Linear Inequalities in two variables quiz</b>
<b>16, 17, and 18</b>	<b>Graphing Systems of Linear Inequalities</b>	<b>Student Workbook pages</b>  <b>Work from text book</b>			<b>Bell Ringer</b>  <b>Graphing Systems of Linear Inequalities Quiz</b>