Algebra – Unit 4.2 Plan
Systems of Equations

Big Ideas
In this unit you will focus on solving word problems by writing a pair of equations, called a system of equations. Then you will solve the system of equations with the same multiple representations. You will review how to solve an equation with the same multiple representations you used for solving linear equations: table graph and by manipulating the equations.

Along the way you will develop ways to solve different forms of systems and will learn how to recognize, when one method may be more efficient than another. By the end of this chapter, you will know multiple ways to find the point of intersection of two lines and will be able to solve systems that arise from different situations.

In this chapter, you will learn:
- how to write and solve mathematical sentences.
- how to solve situational word problems
- how to develop methods to solve systems of equations in different forms.
- what it means for a system to have no solutions or infinite solutions.
- ways to know which solving method is most efficient and accurate.
- to make connections between solving equations, multiple representations and systems of equations.

DAY 1: How many equations do I need?

<u>Objectives</u>
- Continue to learn how to write equations from word problems. Solve a system of equations by rewriting of the equations so that they can use the Equal Values Method.

<u>Agenda</u>
1. Lesson 4.1.2, problems 4-20 thru 4-23

<u>Homework</u>
4-25, 26, 28, 30

DAY 2: Solving Systems of Equations using Substitution
<u>Objectives</u>
- Understand how to use substitution to solve systems of linear equations.

<u>Agenda</u>
1. 4-27 Warm-up
2. Review Homework
3. Lesson 4.2.1. 4-31 thru 4-35

<u>Homework</u>
4-37, 38, 40, 41

DAY 3: Making Connections: Systems, Solutions and Graphs

Objectives

- Examine how a solution to a system of equations relates to those equations and to a graph of those equations.

Agenda

1. Review Homework
2. Quiz 4.2.1
3. Lesson 4.2.2. 4-42 and 4-47

Homework

4-49 thru 4-54, but not 4-53

DAY 4: Solving systems using Elimination

Objectives

- Students will develop the elimination Method for solving systems of equations

Agenda

1. Review Homework
2. Lesson 4.2.3, problems 4-55 thru 4-58

Homework

4-60 thru 4-65, but not 4-61

DAY 5: More Elimination

Objectives

- Study more complex applications of the Elimination Method.

Agenda

1. Review Homework
2. Quiz 4.2.2
3. Lesson 4.2.4 4-66 thru 4-69

Homework

4-71 a&b,, 72, 74, 75 and 4-76 a&b

DAY 6: Choosing a strategy for Solving Systems

Objectives

- Continue to practice different types of equation solving.

Agenda

1. Review Homework
2. Performance Task

Homework

4-81 b&c, 82, 84 a&b, 85, 86 a&b

DAY 7: Pulling it all Together

Objectives

- Continue to make connections between solving equations, graphing, manipulating expressions and problem solving while reviewing content from previous chapters.

Agenda

1. Review Homework.
2. Lesson 4.3.1
3. Review Activities

Homework

Closure 4-116, 117, 118 a&b, 119, 120, 121 and 125

DAY 8: Assessment

Objectives

- Ace the unit test today!

Agenda

1. Review Homework.
2. Unit Test

Homework

Enjoy the night off after studying so hard for this test!