

Date: Wednesday, October 22th, 2014

Lesson Plan Title: Lesson 2.8 Solving Two Step Equations (page 102-105)

Concept/Topic to Teach: Solving Two Step Equations

Standards:

- i. CCSS.MATH.CONTENT.8.EE.C.7
Solve linear equations in one variable.
- ii. CCSS.MATH.CONTENT.8.EE.C.7.B
Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

General Goals(s)/Learning Targets: I can solve two step algebraic equations.

Specific objectives/Essential Question: How can solving algebraic equations help students to problem solve and reason?

Required Materials:

- i. Algebra Tiles Application <http://www.mathplayground.com/AlgebraEquations.html>
- ii. Classroom set of Chromebooks
- iii. Exit Ticket using Socrative.com
 - a. Classroom: JJH28
 - b. Teacher login: <http://b.socrative.com/teacher/#dashboard>
 - c. Student login: <http://b.socrative.com/login/student/>

Anticipatory Set (Warm-up):

- i. The students will answer the following question: If you could be an animal for a day, what would you be? Why?
 - a. On their shape sheets, the students will draw their position and justify why they picked that side. The class will have a discussion on what they picked and why.

Step by Step Procedures:

- i. Homework check on Tuesday's Book Problems on Lesson 2.7 page 96-99
- ii. Notes on two Step equations
 - a. The students will review and practice on how to solve two step equations by reviewing the process on how to solve equations by isolating the variable.
 - b. Model how to use Model Algebra Application from Math Playground (<http://www.mathplayground.com/AlgebraEquations.html>)
 - i. Model to the students on how to solve two step equations with the application, then let them explore solving two step equations.

- ii. Let students complete the problems in the activity and use the algebra tiles to solve the two step equations.
- c. Questions
 - i. What are the difference between the process of solving one step equations and two step equations?
 - ii. What are the similarities between the process solving one step equations and two step equations?
 - iii. Explain the purpose of the balance scale while solving equations.
 - 1. How does this help us understanding the operations we use on both sides of the equation to solve for x ?
 - iv. Why can you add zero pairs to one side of an equation without having to add them to the other side as well?
 - v. Show how you could have modeled to check your solution for each equation
 - 1. How can the double check “check your answer” help you know your solution is correct?
 - vi. Next week, we are working with how to solve multi-step equations. What do you predict will be our process to solve multi-step equations?
 - 1. Similarities and difference between two step equations and multi-step equations?
- iii. The students will work on their book problems on solving two step equations from Lesson 2-8 on page 104, Problems 10-38 even.

Plan for Independent Practice (Homework):

- i. Book Problems:
 - a. Lesson 2.8, page 104, Book Problems 10-38 even

Closure: The teacher will ask the complete an exit ticket using socrative.com. The students will login into their classroom and submit their response on the following question(s):

- i. How well did you understand today's material?
 - a. Totally got it
 - b. Pretty well
 - c. Not very well
 - d. Not at all
- i. What did you learn in today's class?
 - a. Students will summarize what they learned.
- ii. Further questions?
 - a. Students will ask any questions about the solving two step algebraic equations

Assessment based on Objectives (Types of Assessment used in Lesson):

- i. Auditory: Responding to questions and class discussions
- ii. Kinesthetic: Using Algebra Tiles application on Chromebook's to solve two step equations.

iii. Visual: Using Algebra Tiles on Chromebook's to solve two step equations.

Possible Connections to Other Subjects (Inter-disciplinary): Problem solving, Critical Thinking and Reasoning