Unit 3e-Solving Linear Equations

Content Area: **Mathematics**
Course(s): **Math 7 Pre-Algebra Honors**
Time Period: **Marking Period 3**
Length: **WK 6-10 Go Math! Advanced 2 Module 15**
Status: **Published**

Essential Questions

- How can you represent and solve equations with the variable on both sides?
- How can you solve equations with rational number coefficients and constants?
- How do you use the Distributive Property to solve equations?
- How can you give examples of equations with a given number of solutions?

Big Ideas

Linear equations can be analyzed and solved.

CSDT Technology Connection

8.2.8.ED.2 Identify the steps in the design process that could be used to solve a problem.

8.2.8.ED.5 Explain the need for optimization in a design process

Enduring Understandings

Expressions and Equations

8.EE.C.7 Solve linear equations in one variable.

8.EE.C.7b Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

8.EE.C.7a Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form x = a, a = a, or a = b results (where a and b are different numbers).

Mathematical Practices Focus

1. Make sense of problems and persevere in solving them. Lesson 15.3

2. Reason abstractly and quantitatively. Lesson 15.1, 15.2, 15.3, 15.4

3. Construct viable arguments and critique the reasoning of others. Lesson 15.1, 15.2, 15.3, 15.4

4. Model with mathematics. Lesson 15.1, 15.2, 15.3, 15.4
5. Use appropriate tools strategically. Lesson 15.1, 15.2

6. Attend to precision. Lesson 15.1, 15.2

7. Look for and make use of structure. Lesson 15.2

8. Look for and express regularity in repeated reasoning. Lesson 15.2, 15.3, 15.4