

Weigh Out the Algebra

Lesson Plan

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Goal: Use manipulatives to gain understanding in basic operations needed for solving equations of one variable.

Grade and Course: 9th grade Math

KY Standards: MA-11-1.3.1, MA-11-1.5.1

Objectives: The students should be able to recognize the operations necessary for solving single step and multistep equations in one variable. We will focus on the mechanics of isolating a variable by adding, subtracting, multiplying or dividing.

Resources/materials needed: Two standard weight scales, paper cups, counting blocks.

Description of Plan: Review the relevant sections of the textbook. Demonstrate several algebraic expressions using the paper cups and cubes on the scale. Let the students participate in balancing out the scale to make the expression correct.

Lesson Source: Original.

Instructional Mode: Class discussion with physical exams of solving equations as well as group work.

Date Given: October 9, 2007

Estimated Time: 2-3 class periods

Date Submitted to Algebra³: February 25, 2008

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The following are a few illustrated examples of exercises demonstrated in class. It is now left for the students to use their inverse operations to solve for our variable x .

This would represent $x+2$

This is $2*x + 4$

This would represent $-x+3$.

Note: The lining of the picture indicates a negative.

This is $3*x - 1$