

TITLE OF LESSON

Algebra 1 Unit 1 Lesson 36 – Introduction to Problems and Solutions
You Do Speak Math: Creation of the Individual

TIME ESTIMATE FOR THIS LESSON

One class period

ALIGNMENT WITH STANDARDS

California – Algebra 1:

5.0 Students solve multistep problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification of each step.

MATERIALS

CD/Tape player if using music

LESSON OBJECTIVES

- To gain an understanding of what it means to solve a problem
 - To begin work on the solutions to algebraic problems
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EXPLANATION OF LESSON

In this class, students will think about the act of “solving” a problem, and what that entails. They will think about how solving a problem relates to variables.

FOCUS AND MOTIVATE STUDENTS

- 1) Homework Check – Pass back graded assignments and have students place them in their folders.
 - 2) [Agenda](#) – Have students copy the agenda you posted.
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ACTIVITIES – INDIVIDUAL AND GROUP

1. Discuss: Solutions – Have a discussion on the topic "What does it mean to solve an equation or a problem?" Discuss the uniqueness of solutions. In mathematics we may or may not have unique solutions. Have the students come up with problems and solutions. Introduce the idea that some problems may not have solutions or may have solutions that cannot be found. Try to elicit problems related to art, music, dance, movement and money. Represent some of the examples as equations. The money problems may turn out to be the simplest, but also represent equations relating to distance and movement and stretch a bit to come up with ones for art and music. You can always represent points on the canvas as coordinates in the plane and colors as the value at that point. In music we can represent volume and meter as variables.
 2. Simple Problems – Introduce some simple problems. $X + 2 = 5$ or $Y - 3 = 6$
 3. Solve – Explain how to solve them. Relate these examples to money.
 4. Equations – Have the students read the money problems out loud. For instance if Jon has 2 more dollars than Peter and Peter has 3 dollars how many dollars does Jon have? Write them on the board as an equation.
 5. Student Problems – Have the students come up with other questions of this sort. Have another student write the question on the board as a mathematical problem.
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HOMEWORK

Have the students each come up with five simple problems using math. As an example you can suggest that they have a certain amount of money and can buy some quantity of an object. You may also suggest that they use time or distance as a place to look for problems. Give them 20 simple math equations to solve.

GROUP ROLES

Students will be working individually during this class period, unless a student needs help.

DOCUMENTATION FOR PORTFOLIO

None