College Algebra Name:

Chapter 2 Equations, Inequalities, and Problem Solving

Sec. 2.1 Linear Equations in One Variable, pp. 48 – 54

You are familiar with solving equations in one variable. Do the **VOCABULARY CHECK** on Pg. 54.

THINK ABOUT IT:

- What is the difference between an expression and an equation?

- Fill in the blank with the term that correctly completes each statement, using either "solve" or "simplify":
  - We _____ expressions.
  - We _____ equations.

Let's practice a few basic problems, then discuss ways to solve more challenging problems. We will finish with some special cases.

Some math "etiquette":

- If a decimal number is between -1 and 1, use 0 to the left of the decimal point to draw attention to the decimal.
- If a problem has fractions for terms, the answer goes in fraction form (unless it's an integer). The same rule applies to decimals in a problem.
- Do NOT write $\frac{5x}{3}$ as 5/3x. The variable is in the numerator of the first fraction, but in the denominator of the second fraction. If you like using /, then you must write the term as (5/3)x.

Pg. 55 (4, 8, 10, 14, 16, 18, 22)

- For the next set of problems, please use the indicated method for solving:

(24, 26, 28, 32) Eliminate the denominators, first; then solve for the variable.

(30, 33, 34) Eliminate the decimal before solving.

- Now, let's look at those special cases. What does it mean when we get an answer such as:
  - $0x = 8$
  - $-5 = 3$
  - $0 = 0$
  - $12 = 12$

Practice: Pg. 55 (36, 38, 40, 42)

<u>HAND-IN PRACTICE:</u> Show all work!

The following problem set becomes progressively more challenging!

Pp. 55-56 (44 – 66, even); (67 – 76, all)