

# WORD PROBLEMS

It seems that as math teachers and tutors we forever hear students declare that they can do the math, but they can't do word problems. **One of the main reasons we learn mathematics is to be able to solve problems in the real world.** Textbooks often give steps to help the students develop a pattern for solving word problems. The current textbook has steps listed on page 61. The following is similar to that in the textbook but contains some additional hints.

**You need to work many word problems so that you will become more confident and proficient in solving the problems.**

## Steps for Solving Word Problems

1. *Understand* the situation.
  - a. Read the problem once to visualize the situation. Read it again for detail.
  - b. Often it is helpful to draw a picture or chart to organize the information. Other times it is helpful to jot down a list of "What I Know" and another list of "What I Need to Find."
  - c. If the problem is very wordy, try to simplify it by rewriting it.
  - d. Identify the unknown, what you are trying to find, and choose a variable to represent it.
  - e. Estimate your answer prior to solving the problem.
2. *Translate* the problem into an equation using key words (see below).
3. *Solve* the equation by carrying out the operations from step 2.
4. *Check* your answer for reasonableness. This can be done by comparing it to your estimate in step one. Next, check the answer in the original wording of the problem.
5. *State* the answer to the problem using the appropriate units (dollars, feet, miles, people, etc)

## Key Words and Phrases

<i>Addition:</i>	Total, sum, increased by, plus, added to, more than
<i>Subtraction:</i>	Difference, subtract, less than, take away, decreased by, subtracted from, minus, less, how much more
<i>Multiplication:</i>	Multiply, multiplied by, times, product, the product of, twice, double
<i>Division:</i>	Divide, divided into, divided by, the quotient of, shared equally, among
<i>Equality:</i>	Is equal to, is the same as, is, was