Lesson 09: Applied Problems

Steps to Solving Applied Problems

Every day we encounter application or word problems. There is **NO** standard procedure for solving these problems, but there are some guidelines that can be used.

1. **READ** the problem until you understand the problem. Determine what information is given and what you are asked to find. Try to guess what the answer might be.
   DRAW a picture, make a diagram, or construct a table to help illustrate the problem.

2. **IDENTIFY** what you are being asked to find.
   SELECT a variable to represent one of the unknowns.
   WRITE down what the variable represents.
   DEFINE any other unknowns in terms of that variable.
   LABEL the picture or diagram or parts of the table with the variable, any other unknowns, and any additional information provided by the problem.

3. **TRANSLATE** the word problem into an equation that models or represents the situation.
   RESTATE the problem in your own words.
   SEPARATE the larger word problem into small parts.
   WRITE an algebraic expression to represent each part.
   CREATE an algebraic equation that represents the situation by combining the expressions.

4. **SOLVE** the equation.

5. **INTERPRET** the meaning of your solution in terms of the original situation.
   VERIFY that your solution answers the question posed in the original problem and makes sense.
   CHECK your answer by using it to solve the original problem (not the equation).
   FIND other unknowns if necessary.

6. **STATE** your solution in a sentence including appropriate labels as necessary.