The Case of the Mysterious Story Problem

I love story problems. Like a detective, I enjoy sifting out clues and solving the mystery. But what do you do when you come across a real stumper?

Acting out story problems could make a one-page assignment take all week. You don't have to bake a pie to study fractions or measure up the garden to learn area. Use your imagination instead.

The following suggestions will help you find the clues you need to solve the case.

Step one: Understand the problem.

- The first step is to visualize the story behind the problem. That is hard, because it is not something you can touch—it is an idea. But ideas are real and important parts of God's world.
- Read the problem. Read it again. Close your eyes and see the story in your mind. Now open your eyes and make a list of everything in the problem. What do you know? What do you need to find?
- Draw a picture and label it. A picture will often help you think through the problem. What does *x* stand for, and where is it on your picture? What is the angle measurement?
- If you have several pieces of related data, try making a chart or graph. These can help you spot patterns that may lead to a solution.

Step two: Apply common sense.

- Imagine yourself in the story situation. If it actually happened to you, what would you do?
- Next, start to mix things around in your mind. Have you worked a problem like this before? How did you solve that one? Will that method, or something like it, work here?
- What are you trying to find? Have you done any other problems with this type of unknown? How did you find the answer then?
- Is there a formula that might help? Maybe the area or volume of the diagram?
- If you are stumped, try doing one little step. What would you get if you subtract these two numbers, or what if you multiply them? Will that get you any closer to the answer you want to find? How do you know?
- Look for an equation that has a variable for the answer you want (say, *t* for time) and nothing else except things you know. Some-times you cannot get it in one step. You may need to figure out what *d* equals before you can calculate *t*.
- If you are completely stumped, try explaining the problem to someone. Talking it over might help unclog your brain.
- Be careful not to scramble units. If one length is given in inches and another is given in yards, make them both inches or both yards.
- You may not need all the numbers or facts given in the problem. Sometimes textbooks include extra information to give practice in deciding which facts you need for what you are trying to solve.
- Don't give up. Expect to make a few false starts. If you can solve a problem fast, it is not much of a challenge. But if you can solve a hard problem, one that really makes you think, then you know you are a master math detective.

Step three: Present your case.

- When you think you have the answer, ask, "Does it make sense?" Can you find a way to check it?
- Can you think of another way you might have gotten the answer? If you see an alternate approach, would that method have been easier? Make a note of any ideas you come up with. You may need them on your next case.
- Finally, getting the right answer is of little use if the Chief Inspector can't tell what you did. Make it a habit to communicate clearly and neatly. Write out each step of your work, and label your answer carefully, especially the units.

Case closed

The detective goes on to her next challenge...