

Math Problem Tips

Freshman Seminar, Ellet High School

Problem Solving

Learning how to solve math problems is actually a life skill. Math problems are often multi-stepped and demand a systematic approach. Learning how to approach math problems will teach you how to problem solve other life problems.

Follow these easy steps when trying to solve a math problem:

1. Read the problem carefully.
2. What type of information is being sought?
3. Determine all the information that is being given to you in the question.
 - a. What are my key words?
 - b. Is there more than one question being asked?
4. Plan how you will solve the problem.
Do I need a diagram? List? Table?
Is there a formula or equation that I'll need? Which one?
Will I use a calculator? Is there a pattern I can use and or follow?

Watch for Clue Words in Problems:

If you need to add, these words will be present: sum; total; in all; perimeter

If you need to subtract, these words will be present: difference; how much more; exceed

If you need to multiply, these words will be present: product, total; area; times

If you need to divide, these words will be present: share; distribute; quotient; average

Studying Math is Different from Studying Other Subjects

- Math is learned by **doing** problems. Do the homework. The problems help you learn the formulas and techniques you do need to know, as well as improve your problem-solving prowess.
- Each class builds on the previous ones, all semester long. You must attend class, read the text and do homework every day. Falling a day behind puts you at a disadvantage. Falling a week behind puts you in deep trouble.
- You're always reviewing previous material as you do new material. Many of the ideas hang together. Identifying and learning the key concepts means you don't have to memorize as much.
- **Form a study group.** Meet once or twice a week (also use the phone). Go over problems you've had trouble with. Don't copy the work! Instead ask your study partner to explain the problem, and then see if you can figure it out on your own. Copying doesn't teach you the skill.
- The more challenging the material, the more time you should spend on it.

Works Cited

About. *Problem Solving in Mathematics*. <http://math.about.com/cs/testprep/a/ps.htm>

Saint Louis University. *Success in Mathematics*.
<http://euler.slu.edu/Dept/SuccessinMath.html#studyskills>