

Mathematics as a sport

Imagine that you have an important soccer game to play. How do you get ready?

- You know the rules. (That's right, you memorize them.)
- You practise. (Do the same exercise over and over until you always get it right!)
- You imagine winning. (Day dream. Imagine the perfect kick in great detail.)

Doing well in Mathematics is very similar to doing well in any sport. If you know the mathematical rules, practise, and imagine succeeding you are on your way.

Different ways of learning

There are three basic ways that people learn new things. You may be good at one way and better at another. Working in all three ways makes learning easier.

Seeing	Hearing	Doing
Watch someone solve a problem.	Listen to someone solve a problem.	Write notes as someone solves a problem.
Read the book silently.	Read the book out loud.	Take notes as you read the book.
Look at your notes.	Record and listen to your notes on a computer.	Copy out your notes.

Studying

Here are some things that you can do to study mathematics effectively.

1. At the end of class spend one minute writing down three important ideas from the lecture. This will reinforce what you have learned.
2. Make a list of all the mathematical vocabulary that your are supposed to know.
3. Make a list of sample problems.
4. Use the different ways of learning to review the material.
 - (a) Explain to your cat the meaning of all the words on the vocabulary list and how the sample problems work. (If you can't explain it out loud then you haven't finished studying.)
 - (b) Do all of your homework. Do it again finding new solutions. Find patterns in the problems. (Harder: See if you can make up similar problems that are easy to solve.)
 - (c) Read your notes every night even if you don't have homework.
5. If your test will have 10 problems then create a sample test with 10 problems that your teacher might choose. (Learn to think like your teacher by picking the problems.) Make a test like environment for yourself and practise successful test writing by doing your sample test. Visualize getting a good grade.