



Mastering Math

Every class and most teachers have some special requirements to be successful. To achieve, it is important to adjust your study so you can learn the most and use your time well. While there is no guarantee that any strategy or approach will be effective, all subjects do have some characteristics that make them different. The purpose of this lesson is to help you understand some of these characteristics for math and to study systematically using effective skills.

Characteristics of Mathematics

As much as any subject math is based on order and structure. This is not to imply that learning a few rules makes math easy. But, math does follow principles and procedures that, once learned, will lead to success in every problem of the same kind. The key is to know **when** to apply principles and procedures once you have mastered them.

For the most part, success in math requires that you understand a problem and choose the correct procedure to solve it. Success comes from practice as well as understanding problems and solutions. While much of the obvious work of math involves using numbers, it is also important to be able to talk about math problems and how to solve them. Below, we look at using systematic study with math for in-class and home study learning.

**STUDY SMART**

In-Class Math Learning

PREPARE

- A. Look ahead at topics in your textbook, look for similarities to current topics.
- B. Read over your notes from the previous day or two.
- C. Work a few problems from previous assignments.
- D. Review homework.
- E. Get questions ready for teachers.

ACT

- A. Sit in front middle of your class
- B. Focus your attention on relating new ideas to what you have already studied

and learned

C. Ask questions and listen to questions others ask

D. Take careful systematic notes; include problems **AND** explanations

E. Listen to understand

F. Summarize regularly in your notes

TEST

A. Work example problems make sure you understand

B. Review main points in your mind; write a summary from memory

C. Do all assigned homework

D. Make up problems like the ones presented

E. Review your notes and upgrade as suggested

F. Ask for help from your teacher or other students



STUDY SMART

Home Math Learning

PREPARE

- A. Think about the main points presented in class
- B. Set study goals
- C. Review your textbook; begin by surveying and use good text reading skills

ACT

- A. Choose effective study actions
- B. Think through applications of principles or formulas
- C. Read your textbook thoroughly using systematic textook reading skills
- D. Work example problems and explain

each step to yourself as you do them

E. Work practice problems

F. Discuss problems and solutions with fellow **Good** students

TEST

A. Check your self against your goals

B. Ask for help from your teacher or someone else if you do not understand

C. Rework problems

D. Check your answers

E. Check your procedures