



Today's Collegian



Mr. Breitsprecher's Edition

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FREE!



When To Get It Where To Find It

Getting The Most From It!



When should I get help with math? Great question, perhaps the key to success. GET IT AS SOON AS YOU NEED IT! Do not wait until just before a test.

Math and algebra are procedural skills that most of us cannot "cram" effectively. The procedures in each section build on the skills that have been mastered in the previous section.

When students fall behind, the "make-up" work becomes more difficult, because now students are forced to practice and learn complex procedures before they have

developed confidence and accuracy with more basic skills.

Not sure if you need help? Then now is a good time to get it. There are some questions that if we have to ask, we have already answered. Don't wait until you are SURE you need help.

The best time to get help is when you still have some comfort and confidence with the material. Students that get help early and work with other almost always do fine.

Many will find that they can spend less time studying and get

more out of their efforts by having someone available to provide guidance.

Sometimes, just knowing the help is there or getting confirmation on a procedure is the difference between an easy 25 minute study session and hours of frustration.

Resources

Now that we have looked at when to get help, let's review some places to look for provide help. Here are some suggestions:

Math Study Skills Inventory

Rate your achievement of the following statements by placing a 3 for almost always, 2 for sometimes, and 1 for almost never. If you have never even thought about doing what the statement says, put a 0.

Selecting A Math Class

- _____ 1. I schedule my math class at a time when I am mentally sharp.
- _____ 2. When I register for a math class, I choose the best instructor for me.
- _____ 3. If I have a choice, I select a math class that meets three or four days a week instead of one or two.
- _____ 4. I schedule the next math class as soon as possible after I have completed the current course.
- _____ 5. I am sure that I have signed up for the correct level math course.

Time And Place For Studying Math

- _____ 6. I study math every day.
- _____ 7. I try to get my math homework immediately after math class.
- _____ 8. I have a specific time to study math.
- _____ 9. I have a specific place with few distractions to study math
- _____ 10. I get my math homework in the lab where I can get help.
- _____ 11. I am careful to keep up to date with math homework.
- _____ 12. I study math at least 8 to 10 hours a week.

- ✓ Ask questions in class. You get help and stay actively involved in the class.
- ✓ Visit the instructor's office hours. Instructors like to see students who want to help themselves.
- ✓ Use campus academic services, like the Math Center. People with the knowledge and skills to help are available for you.
- ✓ Ask friends, members of your study group, or anyone else who can help. The classmate who explains something to you learns just as much as you do, for he/she must think carefully about how to explain the particular concept or solution in a clear way.
- ✓ Find a private tutor if you can't get enough help from other sources.

Check It Out!



Send Out an S.O.S.?

S.O.S. MATHematics is your free resource for math review material from Algebra to Differential Equations! The perfect study site for high school, college students and adult learners.

<http://sosmath.com>

All students need help at some point, so be sure to get the help you need. Working through these situations is one of the most valuable skills that we learn in college. How I work through problems is often just as important as solving the problem itself. Developing "self-understanding" to know when you need help, locating appropriate resources, and working collaboratively to solve problems is part of what a good education is all about.

Asking Questions

Don't be afraid to ask questions. Any question is better than no question

at all (at least your Instructor/tutor will know you are confused). But a good question will allow your helper to quickly identify exactly what you don't understand. Here are some points to remember about questions.

Not too helpful comment: "I don't understand this section." The best you can expect in reply to such a remark is a brief review of the section, and this will likely overlook the particular thing(s), which you don't understand.

Good comment: "I don't understand why $f(x + h)$ doesn't equal $f(x) + f(h)$." This is a very specific remark that will get a very specific response

and clear up your difficulty.

Good question: "How can you tell the difference between the equation of a circle and the equation of a line?"

Okay question: "How do you do #17?"

Better question: "Can you show me how to set up #17?" (the Instructor can let you try to finish the problem on your own), or "This is how I tried to do #17. What went wrong?" The focus of attention is on your thought process.

Right after you get help with a problem, work another similar problem by yourself. Remember, developing comfort, confidence, and accuracy with procedures is the key to mastering math. Finding good people to work with and developing good communications skills will make math much easier to study.

Take Charge!

You control the help you get. Learning how to best use resources is important. Helpers should be coaches, not crutches. They should encourage you, give you hints as you need them, and sometimes show you how to do problems. They cannot actually do the work you need to do.

They are there to help you figure out how to learn math for yourself. That's why those that get help early, before they fail tests, usually do well. When someone guides our learning by empowering us to more efficiently teach ourselves, we have a valuable skill for life. Problems late in the semester can be avoided altogether.

When you go to office hours, your study group or a tutor, have a specific list of questions prepared in advance. This will allow you to take charge of the session and get the most out of it. When working with a guide or tutor, do not allow yourself to become dependent on that help. The tutor cannot take the exams for you. You must take care to be the one in control of tutoring sessions.

Taking charge means recognizing that sometimes you do need some coaching, and it is up to you to seek out that coaching.

Study Strategies For Math Class

- _____ 13. I read my textbook before I come to class.
- _____ 14. If I have trouble understanding the text, I find an alternate text.
- _____ 15. I take notes in math class.
- _____ 16. I am careful to copy all the steps of math problems in my notes.
- _____ 17. I ask questions when I am confused.
- _____ 18. I go to the instructor or lab when I am confused.
- _____ 19. I try to determine exactly when I got confused and exactly what confused me.
- _____ 20. I review my notes and text before beginning homework.
- _____ 21. I work problems until I understand them, not just until I get the right answer for homework.
- _____ 22. I use flashcards for formulas and vocabulary.
- _____ 23. I develop memory techniques to remember math concepts.

Math Tests

- _____ 24. I preview the test before I begin.
- _____ 25. Before I begin the test, I make notes on things such as formulas that I might need.
- _____ 26. I begin with the easy questions first.
- _____ 27. I take the full amount of time allotted for the test.
- _____ 28. I carefully check or rework as many problems that I have time to before I turn in my test.
- _____ 29. When tests are returned, I keep a log of the types of mistakes I make on tests: concept errors, application errors, or careless errors.
- _____ 30. I keep up to date so that I don't have to cram the night before a test.

Anxiety

- _____ 31. I believe that I can succeed in math class.
- _____ 32. I have study partners in my math class.
- _____ 33. I take practice tests.
- _____ 34. I know several good relaxation techniques.

TOTAL SCORE

Scoring:

- ✓ Total the scores from all 34 statements.
- ✓ If your score is 90 - 103, give yourself an A. You are using the study skill you need in order to be successful in math.
- ✓ If your score is 80 - 89, give yourself a B. You are using good math study skills. Choose a few strategies to work on each day, and you are well on your way to an A.
- ✓ If your score is 70 - 79, give yourself a C. Your study skills are average. If you want an A, choose one or two strategies in each category to work on until you are using most of the strategies described above.
- ✓ If your score is below 70, you are probably having a difficult time in math class. Math may not be your trouble! More than likely, your main problem is the study strategies you are using (or not using). Make yourself do the things on the list above.