

General Tips for Studying Mathematics

- **Go To Class.** Remember that math is cumulative. If you don't go to class you will miss important material that will be used in later sections and/or important announcements.
- **Get to Class On Time.** Sometimes important announcements/assignments are only given during the first few minutes of a class. In addition being tardy is unacceptable.
- **LISTEN During Class.** In order to get something out of the class you need to listen while in class. Often this can be difficult to do but it is very important. Sometimes important ideas will not be written down on the board, but instead just spoken by the instructor. Watch for things the instructor emphasizes, even if just in words. This often means the instructor thinks it's important. The more important that an instructor thinks a topic is, the more likely that it will show up on the exam!
- **Take Good Notes.** Try to write down everything that instructor puts on board. It may seem easy when watching the instructor, but it often is not so easy when it comes time for you to do it. A good set of notes will help remind you how to do these problems. For some instructors writing down everything may be difficult. In these cases you should try to write down as much as possible.
Note as well that this seems to contradict the previous tip. It is often hard to both listen and take a good set of notes. This is something that one often only gains with practice. You need to be able to listen while you are writing down the important parts of the lecture.
- **Ask Questions.** If you don't understand something then ask your instructor. Chances are you are not the only one who doesn't understand.
- **Listen When Others Ask Questions.** When other students ask questions make sure you listen to both the question and the answer. It may be that the student asking the question thought of something that you didn't think of.
- **Review Notes After Class.** After each class you should review your notes. Note the topics that you found confusing and formulate questions that you can ask your instructor or tutor to help you understand the topic.
- **Make a Set of Index Cards.** Make a set of index cards with important formulas and concepts on them. You can carry these around with you to look over when you've got a few spare minutes. Use them to help you memorize the important formulas and concepts.
- **Learn The (Proper) Notation.** Instructors will assume you know it so you'll need to and many instructors will take points off for bad notation.
- **Get Into A Study Group.** It is often helpful to study in groups. People often look at things differently so someone else may see how to solve a problem that can't do or understand a topic that you find confusing.
- **Note Due Dates.** Write down the due dates for homework and dates for exams someplace you'll see them so you don't forget about them.
- **Budget Adequate Time For Studying/Homework.** It often takes more time studying mathematics to learn the subject than you may require in other classes. Homework will often take more time than you had originally thought it would. Keep this in mind as you budget time.
- **Do Homework After Each Class.** At the end of each class budget some time to look over the homework from that days lecture and attempt to do it. Doing this will allow you time to really work at understanding the concepts covered that day. Do not wait until the last minute to do the homework as this often results in an incomplete homework set and/or an incomplete understanding of the concept.
- **Do Homework Without Notes and Book.** After the first few homework problems, put your notes and book up and try to do the remaining problems without referring to your notes and/or book. In most cases you will not have these during your exams so get used to doing problems without them.
- **Do More Homework.** Do not limit yourself to just the homework that your instructor assigns. The more problems that you work the better off you'll be.
- **Practice, Practice, Practice.** Practice as much as possible. The only way to really learn how to do problems is work lots of them. The more you work, the better prepared you will be come exam time.

- **Persevere.** You will not just instantly get every topic that is covered in a math class. There will be some topics that you will have to work at before you completely understand. The only way to really grasp some topics is to go home and think about it and work some problems. You will often find that after a little work a topic that initially baffled you will all of a sudden make sense.
- **Keep Old Homework and Exams.** Do not throw away homework and exams once you get them back. The homework is a good source of study material for exams and both the homework and exams is a good source of study material for comprehensive final exams (if you've got one).
- **Don't Forget Your Textbook.** If you get stuck on a topic that was discussed in class do not forget that you do have a textbook. Often the text book will contain examples not worked in class and/or a different approach to a problem. READ AHEAD. When you have finished or feel as if you have mastered a topic go ahead and read the next chapter or section, even if you do not understand it. You will find this helps you to understand it better when you get to it.
- **Seek Help If You Need It.** The internet is full of videos and tutorials on all the material covered in class.
- **Have the Proper Attitude.** Always do the best that you can. Do not do try to do just enough to get by. Doing this can lead to major problems if you aren't careful. If you are trying to do just enough to get by then all it takes is one bad exam and you are now failing the course. You should always do the best that you can and strive for the best grade that you can possibly get.
- **Do not assume you will be allowed to redo the assignment.** Please do not ask this question, because you cannot retake or redo any test or quiz. Also, no quiz grades or test grades will be dropped so do your best on every assignment.

Thank you to Paul Dawkins for providing the original version of these tips.