## Tips on How to be Successful in Your Math Class

One of the most common questions to ask your math teacher is "How do I improve my grade?" After being asked this on a regular basis and giving almost identical answers every single time, I have come up with this guide to help you be successful from day 1.

- 1) Attend class!!
  - Most math classes introduce something new every day. The most successful students are in class all of the time.
  - If you do miss class contact your teacher beforehand. Look at their website to see if you can find out what the assignment is and try completing it before you return to class.
  - Take complete notes. Most teachers formulate test questions based on material and examples covered in class as well as on those in the text.\*
  - Be an active participant in the classroom. ASK QUESTIONS IN CLASS! Your cell phone is a distraction to being an active participant.
- 2) Do all of your homework.
  - 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.\*
  - If it has been awhile and you don't remember what the lesson was on, look at your notes before starting your assignment.
  - Write the problem down and SHOW ALL WORK.
  - The best way to remember a formula is to write it from memory every time. Make flashcards to help if need be.
  - Get in the habit of checking your answers after each problem! If it is wrong try and go back and fix it right away.
- 3) Find a friend(s) in class to study with on a regular basis.
  - This is not a group to chat with about what happened over the weekend, this is a group that helps each other on solving problems.
  - If you know you have a test the next week, meet with the group on the weekend to study for your upcoming test.
- 4) Establish a good relationship with your teacher.
  - Communicating with your teacher is one of the best ways to show your interest and get extra help when needed.
  - Get to know your teachers classroom rules and abide by them.
  - Part of this relationship is established during lecture time, when the teacher is up front. Are you talking? Are you on your cell phone? Do you have your head down? All of these can be a sign to your teacher of disinterest or apathy. Show your teacher you care by actively participating in class; ask questions, take notes.
  - Say hello to your teacher outside of class.
  - If you didn't understand something your teacher has just explained or if you didn't hear it, ask your teacher to repeat what she/ he just said. The teacher will know that you are trying to listen and learn.

- 5) Basic skills are essential.
  - What is 5 times 9? To be successful you must be able to answer this quickly and accurately.
  - Multiplication and fraction work are some of the most common mistakes high school students make.
  - Make flash cards, buy a computer program, and practice, practice, practice.
  - Even in calculus, most problems consist of one difficult step, followed by ten steps of Algebra.
- 6) Studying for a Math Test
  - Do homework when it is assigned.\*
  - On tests you have to solve problems; homework problems are the only way to get practice. As you do homework make a list of formulas and techniques to use later when you study for tests.\*
  - Start by going over each section, reviewing your notes and checking that you can still do the homework problems (actually work the problems again). Also, rework any examples that were done in class. It is common to see both examples and homework problems that were talked about in class on an exam.\*
  - Have all memorizing done a few days before the exam.
  - If you have a review assignment, complete it as if it were an exam. Don't use notes, try to use formulas from memory. If you had to ask questions or look up formulas, make a practice test for yourself and take it as if it were an exam. (
  - Remember studying for an exam starts from day 1. Everyday, doing the homework and participating in class is preparing for your exams. Take it seriously and put in the effort needed to succeed.
- 7) 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.
  - Not a helpful comment: "I don't understand this section." The best response you can expect in reply 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 hopefully 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 I 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 the attention is on your thought process.
  - Right after you get help with a problem, work another similar problem by yourself.
  - A helpful comment / question is specific. It focuses on what you didn't understand. This requires you to think about what is confusing first and then ask about it.

\*Taken from <u>Success in Mathematics</u>, Department of Mathematics and Computer Sciences Saint Louis University