



Math Study Skills



Chapters 1 & 2

Chapter 1 - Introduction

- ▶ There are many reasons why we are not successful in math (yet):
- ▶ Are you good in other subjects, just not math?
- ▶ Did something happen in the past to turn you off from math?
- ▶ Do you have anxiety in finishing all your college courses, not just math?
- ▶ Do you have anxiety taking exams?
- ▶ Do any of these apply to you?



What you can do to lessen your math anxiety

- ▶ Math anxiety is a changeable habit pattern
- ▶ A lack in success in math is rarely because of a lack of intelligence
- ▶ The key is not to work harder, but to have better habits
- ▶ If your current habits are not working for you, then we can develop new habits
- ▶ How you approach math is far more important than how “smart” you are
- ▶ Even if you feel stuck for time, you can improve your approach to math



Exercise – your current study habits

- ▶ Complete the paragraph on “My approach to homework and studying in math class is...” (5 minutes)
- ▶ Include how often you study
- ▶ How long you study
- ▶ How you begin and end the session
- ▶ How do you prepare for exams
- ▶ What else is a factor (work, family, environment)
- ▶ Then list “The things I do that I know are effective...” (3 minutes)
- ▶ Then list “The things I don’t do that I know I should...” (3 minutes)



Overview of Math Study Skills topics

- ▶ Ch. 2: What makes math different?
- ▶ Ch. 3: Learning styles
- ▶ Ch. 4: Math anxiety
- ▶ Ch. 5: Managing your time
- ▶ Ch. 6: Your class notebook
- ▶ Ch. 7: Your textbook and your homework
- ▶ Ch. 8: Class time and note taking
- ▶ Ch. 9: Retention and general study strategies
- ▶ Ch. 10: Test Taking



General principles of success

- ▶ Steven Covey – succeeding is “an in-depth study of the obvious”.
- ▶ Some things you will read will seem obvious to you
- ▶ But, if you *knew* it, are you *using* it?
- ▶ Success requires change and action, not just knowledge



Exercise – Where should you focus?

- ▶ Look at the nine Math Study Skills topics (pg 4-6)
- ▶ List three of the nine as the ones you most want to work on
- ▶ Include your reasons why
- ▶ 5 minutes



Chapter 2 – what makes math different

- ▶ In your own words, if you think math is tough, explain why.
- ▶ If you don't think math is tough, then explain what you want to get out of this class
- ▶ 5 minutes



Math is not LIKE a foreign language

- ▶ Math IS a foreign language, like French or HTML
- ▶ It has its own vocabulary, rules, and symbols
- ▶ What are some ways people use to learn French?
- ▶ Note cards, dictionaries, speaking translations out loud
- ▶ You can do the same thing in math
- ▶ Unlike French, though, speaking the language correctly isn't the end result
- ▶ In math, the end result is to understand the concepts and develop the skills needed to solve problems
- ▶ In *most* college math courses, professors don't have the time to teach math as a foreign language course



Exercise – Checking out vocabulary

- ▶ Write down these five words (from math) and then write what YOU think they mean:
- ▶ Product
- ▶ Difference
- ▶ Function
- ▶ Argument
- ▶ Factor
- ▶ 7 minutes



Math is a skill-based subject

- ▶ It must be practiced repeatedly
- ▶ It is a lot like hitting golf balls at a driving range
- ▶ Many times, students understand what the teacher is writing on the board in class, but “lose it” when they go home to do their homework
- ▶ It is important to practice what you heard in class, as soon as you can. You must *act* on what you have heard
- ▶ Spread out your learning. Do a little every day, instead of a lot at once
- ▶ This is especially important if you have job, family, etc



College course structure

- ▶ It is stressed repeatedly in my meetings with my dean that college students are adults, and are to be treated as such
- ▶ Most instructors will not monitor your performance
- ▶ The pace is faster, and more responsibility is placed on you
- ▶ This makes effective time management, self-discipline, and making your education a priority so important
- ▶ Time management is covered in Chapter 5
- ▶ Good news - MTH 0906 is designed to be “transitional”



Attitudes towards math

- ▶ There is no truth that people *must* struggle with math
- ▶ Also no truth that there are gender differences with math
- ▶ Math is used in more things than you may think
- ▶ Most students understand that negative attitudes are harmful, but do not always understand how to defeat the negative attitudes
- ▶ Chapter 4 deals with math anxiety
- ▶ Building math skills is important – but changing math attitudes is actually *more* important



A student's math background

- ▶ In math, topics build on one another – Chapter 2 depends on Chapter 1, etc
- ▶ What if you get overwhelmed?
- ▶ Talk to a counselor, get into a pre-requisite course
- ▶ Get a tutor
- ▶ Work with a friend, not copy from a friend
- ▶ What if you think you are over-prepared for this class?
- ▶ Talk to your counselor



Quality of instruction

- ▶ I am the best math teacher in the world
- ▶ Seriously, as night students, you don't have many choices
- ▶ If you don't feel this style of class (lecture) is working for you, and daytime classes are an option, you can talk to a counselor about entering one of the lab courses
- ▶ If this is not an option, then review the syllabus, particularly the expectations of the course
- ▶ Know what you are getting into
- ▶ Knowing how college differs from high school will help you not only in math, but in all your college courses



Exercise, Finding Professor Right

- ▶ List three qualities you think are most important for an instructor to have, and why
- ▶ 5 minutes

