

Eight Tips to Reading a Textbook

based upon Paul Nolting's "Winning at Math"

- 1) **Skim the Reading Material.** Begin by taking ten minutes to skim the material to get a basic idea of what math concepts are being addressed and how the section is laid out. Highlight, circle, or write down any new words and concepts you do not understand. This skim can be done when you have a ten or fifteen minute break. As much as possible, do this skimming before you attend the class that covers this material.
- 2) **Read with Full Concentration.** Later, you want to read with full concentration, highlighting or writing down material that is important, but do not over do it. If you are writing down or highlighting more than a quarter of a page, that is usually too much and you need to focus on the important ideas.
- 3) **Work through Each Step.** When you get to an example, be sure to work through each step on a separate piece of paper and understand and justify each step. Next, work the problem out on a blank sheet of paper without looking at the textbook. Finally, work out a similar example. Sometimes a textbook will leave a step out, so be sure to fill in any needed steps.
- 4) **Mark Unknown Words and Concepts.** Modify your list of new words and concepts that you do not understand appropriately. Try rereading the page or looking up these words and concepts in a glossary or even in another book. If that fails, ask someone like a friend, your study buddy, a tutor, or your instructor.
- 5) **Understand the Material.** If you do not understand the material, try
 - a) Start rereading from the previous page.
 - b) Read the next page.
 - c) Review examples, diagrams, etc dealing with the material.
 - d) Read the misunderstood material out loud several times.
 - e) Refer to your lecture notes for a better explanation.
 - f) Refer to another resource for another explanation.
 - g) Figure what exactly you do not understand and call your study buddy. If that fails, talk with a your instructor or a math tutor.
- 6) **Recall Important Material.** After you finish reading the material, try to recall the important concepts, rules, formulas, etc from the reading material. Make note cards on important concepts and definitions you are having trouble remembering. Looking at the summary section at the end of the chapter is another good way of recall the important concepts from the reading.
- 7) **Reflect on the Reading.** Think about how does the reading relate to what you have already learned? Write down any questions you have on the information that is confusing and ask your instructor.
- 8) **Guess the Test Question.** Based on the reading material, make-up several questions that would be good test questions and work them out. Add these to your notes.