
Part 1 – Limits and the Derivative

Chapter 1	Functions and Models
1.1	1 5-8 9 11 13 17 19 21 22 23 25 27 31 35 37 39 41 43 45 47 49 53 57 63 65
1.2	1 3 5 7 9 11 13
1.3	1 3 5 7 9 11 13 15 17 21 23 27 29 31 35 37 39 41 47 50 54 57 59 60 63
Review	Read over the Concept Check and True-False Quiz on Page 55
Review	Attempt 1-20 and 22 on page 56.
Chapter 2	Limits and Rates of Change
2.1	1 3 5 7
2.2	1 3 4 5 7 9 13 19 23 25 27 29
2.3	1 3 5 7 9 10 11 13 15 17 19 21 23 25 29 35 37 39 41 45 47 49 51 59
2.4	1 3 5 13 15 17 19 21 23 25 41 43
2.5	1 3 5 7 11 13 15 17 19 21 23 27 31 33 35 37 39 41 45 47 53 59
2.6	1 3 7 9 11 15 17 19 21 25
Review	Read over the Concept Check and True-False Quiz on pages 121 and 122
Review	Attempt 1-30 on pages 122 and 123.
Chapter 3	Derivatives
3.1	1 3 4 5 7 13 15 17 19 23 25 27 29 31 33 35
3.2	1 3 4 5 7 9 13 19 21 25 27 33 35 39 41 45 47
3.3	1-43 (odd) 51 53 57 59 63 65 67 69 71 75 83

You should read ahead, and all problems should be attempted as soon as the material is covered in class. Do not fall behind. REMEMBER: There is help available. If you need help, get help!

Start by reviewing the **Appendixes** in the back of the book. This is a very brief look at some important algebra topics. Also visit the web site <http://www.uwlax.edu/mathematics/Math207> and click on the various links in the left hand column. There is also an interesting *Preview of Calculus* on pages 2-9 of your textbook.

If you cannot get a certain problem to work out after looking over your notes and the textbook, go on to another problem (do not stop at the first hard problem that you come to). Ask about the hard one the next day in class or come to my office. If you can find the correct solution, but you are not sure you fully understand a topic after reading the text, looking over your notes, and working a few problems of a given type, **add** a few more problems to this list.

When solving multi-step problems, don't just practice the steps; try to learn why the steps work. Read over the theory and keep working problems until you see the connections between the various types and you are sure you understand the process.

There will be a 15 point quiz nearly every Friday. The first exam will be worth 100 points and will be on **Friday, February 10**. Each quiz or exam will cover all sections introduced up to the quiz/exam date.

Study Tips

The goal of the course is to become familiar with the theory and skills related to algebra, trigonometry and calculus. The following list of steps is the way in which I suggest you study for this course:

- Each night, finish any problems that you have not completed in sections that have been discussed in class. If you run into trouble, make a note so that you can ask it in class, in the tutor room or in my office.
- Then read the section that is going to be covered the next class period.
- Look for relationships (similarities and differences) between this new section and the sections that came before (there are usually many).
- Strive to complete the lower numbered problems that have been assigned in that section. The exercises typically get more challenging as the problem number increases. Keep going until you get stuck.
- Next, read all of the remaining problems and attempt any that seem “do-able”.
- Come to class the next day prepared to ask questions related to any concept or problem that you do not understand.
- After class, attempt to complete all of the problems that you were not able to complete the night before.
- For each problem you encounter, try to make sure that you cannot only successfully *complete* the problems, but that you also *understand* why the solution process works, so that you can confidently attempt similar (but different) problems. The problems are usually tied to an important concept that will be encountered again and again.
- Make a point to consider how it is you will communicate your work. On exams and quizzes, it is necessary to “Show Me How” to find the solution to each problem, not to simply come up with the answer.
- Remember that there is quite a bit of help available. So if you cannot complete this list, get help (soon).
- The course web-site, <http://www.uwlax.edu/Mathematics/Math207>, has quite a few useful items on it. Including:
 - Links to the web-based activities that will be assigned.
 - Most of the handouts given in class (in case you lose one).
 - Advice from former Math 207 students, listed by major.
 - Links to other algebra and calculus websites that contain information and practice problems.
 - A link to the UW-L Web Calculator, which contains a calculus site.
 - My office hour schedule and contact information.
- Studies have shown that if you spread out your studies over the week, you will understand and retain much more than if you cram once or twice per week (even when the total number of hours spent studying remains fixed).