

MATH 135, section 1 – Calculus 1
Review Sheet – Exam 1
September 13, 2013

General Information

- The first exam of the semester will be given in class on Friday, September 20.
- You may use a TI-30 or similar scientific calculator for the exam. Basically any calculator that does NOT have graphing capabilities is OK. (Note: Some of you may have one of these calculators purchased for use in Chemistry courses here. They are OK.) We also have a few of these calculators in the department that you can borrow for the exam if you do not have one.
- Use of phones, I-pods, I-pads, and all other electronic devices *is not allowed* during the exam. Please leave such devices in your room or put them away in your backpack (and make sure phones are turned off).

What will be covered

The first exam covers the following sections from the text: Sections 1.1, 1.2, 1.3, 1.5, 1.6, 1.7, plus Appendix C. This is the same as the material from the first two problem sets and includes specifically:

1. Functions and different methods of representing them (verbal descriptions, tables of values, graphs, formulas)
2. The basic “catalog” of functions (linear, power, polynomial, rational, algebraic, exponential, trigonometric)
3. Techniques for constructing new functions from old ones (vertical and horizontal shifts, vertical and horizontal scaling, sums, products, quotients, compositions)
4. Inverse functions (know how to tell if a given function has an inverse function and how to describe the inverse function by a formula or a graph if it does)
5. Logarithm functions and their applications.
6. Trigonometric functions.
7. Parametric curves.

How to prepare

You should go over the homework problems as well as your class notes. Many of the problems and questions we discuss in class are excellent examples of test questions. I have also listed some sample problems in a WebAssign problem list to help you prepare. That is not a graded assignment, though, so there is no requirement that you do those problems, and there will no limit on the number of times you can try each of them to get a correct answer (up to 100 times!).

Suggested review problems

Chapter 1 Review Exercises, pp. 84 - 85: 1, 5, 7, 8, 9, 13, 15, 16, 19, 22, 24, 25, 28bc.