

MATH 141, Fall 2014
EXAM 1 TOPICS

Exam 1 will take place on Thursday, September 18.

The exam will be one class period long. Graphing calculators (TI- \leq 86) are allowed and are somewhat useful. Be aware that I will come around and delete their memory before the exam.

Bring your QC ID to class for this first exam.

The exam covers all material covered so far in this course, including Sections 1.1–1.6 of Stewart's *Essential Calculus*.

In addition to computational questions, there will be questions that ask you to understand concepts from the course, possibly including, and not limited to: (Pages apply to both 1st and 2nd Editions)

- The definition of a function (p. 2)
- The intuitive definition of a limit (p. 25)
- The Squeeze Theorem (p. 41)
- The definition of continuity (p. 46)
- Proving a function is continuous to prove the existence of a limit
- The Intermediate Value Theorem (p. 52)
- Conceptual understanding of infinite limits and limits at infinity (pp. 56–59)

You should understand how to use your graphing calculator to:

- Graph multiple functions.
- Choose suitable window to enhance the graph.
- Determine numerical approximations to limits using TABLE.

To study for the exam:

- I **especially recommend** the Chapter Review given for Chapter 1 (pp. 517–518 (1st Ed) or pp. 541–542 (2nd Ed)) *Take these questions seriously.*
- Verify that you understand all definitions from Chapter 1 similarly to how we discussed in the first two classes.
- Review Webwork assignments 1–3. It is possible to return to an assignment and see the correct answers.
- There will be a Question and Answer session during the second half of class on Tuesday, September 16. Prepare questions to ask during this Question and Answer session.