

Math 311—Summer 2009

Topics for the final exam

The midterm exam will include proofs of theorems presented in class and some problems of the type assigned in homework assignments or discussed in class. You should also be able to give examples and counterexamples illustrating definitions and theorems.

The exam will be comprehensive, with a slight emphasis on the later sections.

You will be asked to **prove** some of the following:

- Lemma 14.4
- Monotone convergence theorem (18.3)
- Theorem 19.7
- Theorem 20.8
- Theorem 22.2
- Lemma 22.5
- Theorem 23.8
- Theorem 25.6
- Rolle's theorem (26.2)
- Mean value theorem (26.3)

In addition, you should be familiar with all other results discussed in class and used in the homework assignments so that you can use them to solve problems.