

Exam 2 Information – Math 207 GH

Fall 2016

Exam 2 will cover the following material

- 1) From the web site:
 - Review for Exam 1, Exam 2
 - All lecture notes posted on the class's web site for Classes 1-14

- 2) From the Textbook:
 - Chapter 1: 1.1, 1.2, 1.3, 1.5, 1.6
 - Chapter 2: 2.1, 2.2, 2.3, 2.5, 2.6, 2.7, 2.8
 - Chapter 3: 3.1 (Polynomials only), 3.3 (sine and cosine only)
 - Chapter 4: 4.1

Students need to be prepared to state: Definitions such as relative and absolute extrema, least upper bound property, Intermediate Value Theorem (both versions), the definition of the derivative at a number x , the definition of continuity (both at a point and on an interval)

Students need to be prepared to prove: (note that these proofs are all posted on the lecture notes)

- The limit of $\sin x/x$ as x approaches zero
- Compute derivatives as limits of the difference quotient for algebraic functions and those of sine and cosine.
- The constant, sum, and constant multiple rules for derivatives
- The Intermediate Value Theorem (both versions)
- If f is differentiable at a number c , then it is continuous there