

Exam 4 Information

Math 207 GH - Fall 2015

Exam 4 (same as the final exam) will cover topics from all handouts posted on the class's web site. These include lecture notes, quiz reviews, and previous exam reviews.

Students must be able to **state and prove**:

Mean Value Theorem, differentiating functions using the definition (limit of the differential quotient). These include $\sin x$, $\cos x$, $\log_a x$, a^x , $\sin^{-1}x$, $\cos^{-1}x$, $\tan^{-1}x$. If a function is differentiable at a number x , then it is continuous there. The product and quotient rule for derivatives.

Students must be able to correctly **state** the following:

Least Upper Bound Property of real Numbers, Intermediate Value Theorem, Rolle's Theorem, Mean Value Theorem, Second Derivative Test. The Fundamental Theorem of Calculus (Parts 1 and 2).

Exam 4 will cover the following topics from the textbook

Chapter 1: all except 1.4
Chapter 2: all
Chapter 3: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.9
Chapter 4: all except 4.8
Chapter 5: all
Chapter 7: 7.8