

# Exam 2 Information – Math 207 PQ

Fall 2014

Exam 2 will cover the following material:

1) From the web site:

- Exam 1 and 2 Reviews and Are You Ready for Calculus?
- All lecture notes posted on the class's web site for Classes 1-13

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), 3.2 (product rule only), 3.3 (sine and cosine only), 3.6
- Chapter 4: 4.1, 4.7, 4.9

Students must be able to prove the following theorems:

- Differentiating functions using the definition (as the limit of the differential quotient). These include polynomials, generalized polynomials, sine and cosine functions, and logarithmic functions
- If a function is differentiable at a number  $x$ , then it is continuous there.
- The sum and constant multiplier rule of derivatives
- The product rule for derivatives.