

Math 160
Review Sheet for Exam II
Friday, 2 March 2012

The exam covers book Sections 2.1-2.6, 2.8, and part of 3.1. The specific topics are as follows:

1. Velocity and slope of tangent line. (2.1)
2. Graphing f' using the graph of f , and points of non-differentiability. (2.2)
3. Derivative formulas #1-8. I will ask you to state and prove the quotient rule. You don't need to be able to prove any of the other first 8 formulas, but you do need to be able to use them. (2.3)
4. Derivatives involving trig functions. You should be able to prove all six of the formulas for the trig derivatives. You should be able to use what we called Key Limits #1 and #2, but you don't need to prove these two limit formulas. I will give you the addition of angles formulas for sine and cosine, so you don't need to memorize these. (2.4)
5. Derivatives using the Chain Rule. You don't need to be able to prove the Chain Rule, but you do need to be able to use it. (2.5)
6. Implicit differentiation. (2.6)
7. Related Rates. (2.8)
8. Critical numbers. (For this test, the only thing from section 3.1 you need to know about is the topic of critical numbers. You will not be asked about relative or absolute extrema, Fermat's Theorem, or the Extreme Value Theorem.) (3.1)