

Test 2 Study Guide

Things you should know.

1. Stuff from the last exam.
 - (a) Limits
 - (b) Continuity
 - (c) Intermediate Value Theorem
 - (d) Definition of the derivative and where this definition comes from (a limit of slopes of secant lines)
 - (e) Finding the equation of a tangent line
2. The Derivative
 - (a) How to compute it
 - i. The derivative of a constant
 - ii. Power rule
 - iii. Linear Combination rule
 - iv. Product rule
 - v. Quotient rule
 - vi. Chain rule
 - (b) How to interpret the derivative as a rate of change.
 - i. Position function and how it is related to the velocity function and the acceleration function.
 - ii. Be able to compute rates of change with respect to different variables. E.g., problems 49-53 in § 3.3.
 - (c) How to interpret the derivative graphically.
 - i. What information about $f(x)$ can be derived from its derivative and vice versa.
3. My office is Boyd 434E and my email is chadm@math.uga.edu. If you need help, let me know. Remember it is my job to help you understand this material.