MATH 1550 - Calculus I - Section 1

Summer 2013

Exam 1 Review

Test 1 will cover Sections 2.2-2.3, 2.5-2.8 and 3.1-3.9 (through all assignments due by Monday, July 1st). The best way to learn this material is to practice! Here is a list of suggested problems from our text but you should feel free to challenge yourself with more problems and harder problems towards the end of each section. Make sure to look back through all your notes, WebAssign and written homework - everything covered there is relevant. You will be asked to state at least one, and possibly both, of the definition of continuity and the definition of the derivative. These are stated below. Keep in mind that knowing these statements is great, but that we really need to understand what they're saying if we're going to use them in a meaningful way. If there's anything you don't understand about any of the material covered thus far, now is a great time to ask about it!

Section 2.2: 5, 7, 9, 15, 16, 17

Section 2.3: 1, 11, 13, 15, 21, 22, 25, 26, 27, 30

Section 2.5: 1, 3, 5, 7, 8, 11, 19, 21, 35, 37, 39, 41, 43, 45, 47(b), 49, 51, 53, 65

Definition: A function $f(x)$ is continuous at $x = c$ if $\lim_{X \to c} f(x) = f(c)$.

Section 2.6: 3, 5, 7, 9, 15, 16, 19, 29, 41, 43, 44, 45, 49, 50

Section 2.7: 5, 6, 7, 13, 17, 23

Section 2.8: 21, 23, 26, 27, 30, 37, 39, 56

Definition: The derivative of a function $f(x)$ is $f'(x) = \lim_{h \to 0} \dfrac{f(x+h) - f(x)}{h}$.

Section 3.1: 5, 7, 9, 13, 17, 19, 23, 29, 33, 43, 47, 51, 53, 61, 67, 69, 75

Section 3.2: 3, 5, 7, 11, 15, 27, 29, 35, 37(a)

Section 3.3: 1, 3, 5, 9, 13, 17, 19, 21, 23, 28(a), 29, 35, 49

Section 3.4: 7, 9, 11, 21, 23, 29, 31, 35, 41, 47, 51, 53, 55(a), 57(a), 77, 79, 81

Section 3.5: 5, 7, 11, 13, 19, 25, 26, 27, 33(a), 34(a)(b), 49, 51, 57

Section 3.6: 3, 5, 7, 9, 19, 23, 32, 33, 51

Section 3.9: 3, 5, 19, 21, 28, 31, 41