Section	Hand In	Practice Problems
3.1 I	#s 1 – 3, 5, 7, 14, 18	#s 1 – 18
3.1 II	#s 19, 21, 25, 31, 32, 44	#s 19 – 54
#s 51 and 52 are of interest in advanced calculus. We'll discuss these two if there's time (and I'm		
sufficiently well-prepared).		
3.2	#s 8, 11, 14, 21, 23, 24, 28, 32, 52	Every 4 th problem
#11 is like an $x^{1/3} + 2$ or something similar.		
#28a is a skill from College Algebra – Can you graph $\sqrt{6-x}$ by transforming \sqrt{x} ?		
3.3 I	#s 2, 4, 9, 14, 22, 23, 33, 49, 53, 66	Every 4 th problem.
3.3 II	#s 70, 71, 73, 78, 84, 85, 89, 90, 91, 96, 97, 99, 100	
3.3 II problems were assigned individually. Each of you has one to write up. You may wish to		
team up and wo	rk two or three with a partner or partners.	th
3.4	#s 2, 9, 14, 18*, 20, 23, 40, 46, 50	Every 4 th problem.
Do #18 like I did the proof for the derivative of tan x in class.		
Do #20 like I did the proof for the derivative of sin x in class, but assume that $\lim_{h \to 0} \frac{\sin h}{h} = 1$ and		
$\lim_{h \to o} \frac{\cos h - 1}{h} = 0$ parts are already established.		
#s $39 - 44$ This is not valid: $sin(3x) = 3sin x$.		
3.5	#s 4, 11, 18, 27, 35, 48, 54, 67, 70, 88	Every 4 th prob.
3.6 I	#s 4, 7, 10, 19, 25, 28, 32*, 33	Every 4 th prob.
# 32 requires a grapher, either one of your own, or a free one online that you manage to locate.		
3.6 II	#s 49, 50	
3.7	#s 5, 6, 15, 16, 26, 27, 32	Every 4 th prob.
3.8	#s 2, 5, 10, 21, 24, 27, 28	Every 4 th prob.
#10 – Differentiate both sides with respect to $t = time$, by assuming that both x and y are implicitly		
a function of time. The question is asking for $\frac{dx}{dt}\Big _{y=3}^{x=2}$.		
3.9	#s 3, 6, 9, 12, 16, 19, 29, 32	Every 4 th prob.
#32 should remind you of the disk problem we did in Section 2.4. Recall, we went from an		
acceptable error tolerance in area (ε given) to an acceptable error tolerance in the radius (δ was		
what we found). Now we're given an error tolerance in the measurement of the radius and asked to		
reason to what the error will be in the area. So you're getting these disk measurement questions		
from both directions.		