

Math 1210 Chapter 5 Test Review

About the test: No notes. No cell phones. No calculators. You must show your work to get credit. Simplify your answers as far as possible. Points are taken off for rounding and labeling errors. Seating during the test is every other seat. There are two sections of this class, so don't talk to anyone about the test until both sections have taken it.

Date	Lecture Topic	Assignment Due
Apr 2	5.8	5.5,5.7
Apr 3	Help Session (notice the change)	
Apr 4	Review	5.8
Apr 5	Test Chapter 5	Chapter 5 Extra Credit Review (due when you take the test)
Apr 6	Good Friday Holiday	
Apr 9	Easter Holiday	

What to study

- increasing/decreasing, concavity, critical points, inflection points, relative and absolute extrema
- what positive/negative f, f', f'' signify
- sketching curves and rational functions (find intercepts, asymptotes)
- complete the Extreme Value Theorem, Rolle's Theorem, and MVT if I provide the hypothesis
- find extrema
- do applied optimization problems
- know what Newton's Method looks like on a graph
- set up Newton's Method and do initial step after using IVT (Newton's Method formula provided)
- speed problems using MVT
- analyzing rectilinear motion using graphs and equations

Extra Credit Review Problems (15 points, due when you take the test)

A. Fill in the table:

	+	0	-
f			
f'			
f''			

B. Give the following for the graph of f below. If the item does not exist, so state. You may estimate values if necessary.

	<p>a) interval(s) where f is increasing _____</p> <p>b) interval(s) where f is concave down _____</p> <p>c) inflection point(s) as ordered pair(s) _____</p> <p>d) relative (local) maximum(s) as ordered pair(s) _____</p> <p>e) relative (local) minimum(s) as ordered pair(s) _____</p> <p>f) absolute (global) maximum(s) as ordered pair(s) _____</p> <p>g) absolute (global) minimum(s) as ordered pair(s) _____</p> <p>h) critical point(s) as ordered pair(s) _____</p>
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C. Fill in the table:

When f' is 0 at a point

	f	f'	f''
max			
min			
neither			

- 5.1: Quick Check 1abc
Exercises 3,4,12
- 5.2: Quick Check 4
Exercises 16,24,47
- 5.3: Exercises 1,10
- 5.4: 10,13,19
- 5.5: 5,16
- 5.6: 3 (first step only, use IVT), 8 (first step only, use IVT)
- 5.7: Example 5
- 5.8: no problems assigned since you've just turned in the homework