

Last update: Thu Dec 7 05:48:42 MST 2006 [/m147.fa06/handouts147/t5\\_147\\_C11/review\\_suggestions\\_5\\_fex](/m147.fa06/handouts147/t5_147_C11/review_suggestions_5_fex)

- 1 This list is not in final form. Like, stuff may yet be added to it.
- 2 The final exam is

Monday  
12/11/06  
8 AM - 10 AM.

- 3 The exam will be comprehensive.
- 4 A list of problems allied with problems of Test #1, 9/22/06.

Problem Number	Similar Problems
1	4.1: 77, 79
2a	Newt's Q
2b	Newt's-Q Answers
3	2.5: 5-27
4	2.8: 31-50, especially 39
5	2.5: 39, 40
6	1.7: 37, 45, 47, 49
7	1.8: 87, 89, 91
8	1.3: 97, 99, 101, 103
9	1.2: 63, 67, 69
10	2.6: 27
11	2.6: 23
12	2.4: 33, 37, 39, 41. 4.1: 19-24. 4.2: 41-46. 458: 6-10

- 5 On Test #4 we had problems 2(a) and 2(b) which each should have shown two terminal points. This is affiliated with the maybe-two-triangles problem in the Law of Sines. Be sure you deal with this explicitly whenever it comes up.

6 A list of problems allied with problems of Test #2, 10/13/06.

Problem Number	Similar Problems
1	4.4: 67, 69, 71, 75
2	4.3: 41, 43, 47
3	4.3: 19, 21, 27, 35
4a	4.2: 21
4b	4.2: 17
4c	MATH 175
4d	Clock!
5a	Find the function.
5b	
5c	$A(t + H) = \frac{1}{2}A(t)$
6	455: 21, 23,25, 27. 572: 59, 61, 63
7	4.4: 43, 45, 47
8	4.1: 27, 29 (and intercepts!)
9	Inverse finding.

7 A list of problems allied with problems of Test #3, 11/3/06.

Problem Number	Similar Problems
1a	3.4: 31, 33, 35, 41
1b	8.3: 25, 27, 29, 31, 35, 37
1c	8.3: 53, 65, 67, 75
2	6.4: 13. 521: 16
3	6.4: 15, 17, 19, 21, 25
4 & 5	Bottom half of 571
6	5.3: 35, 37
7	Bottom half of 571
8	5.3: 41, 43, 45, 47

8 Yammersby has **\$5,000** to deposit for five years. Bank A is paying **6%**, compounded quarterly, while Bank B is paying **6%**, compounded continuously. There's a whole **\$15.02** difference.

9 In class on Wednesday, 12/6/06, we studied the temperature law for an inert body immersed in an environment of a constant **95°F**. At **0700**, the body was at **40°F**, while by **1100**, it had warmed to **65°F**.

If  $T(t)$  stands for the Fahrenheit temperature of the body  $t$  hours after the midnight preceding this experiment, then  $95 - T(t)$  is an exponential function, so that

$$T(t) = 95 - 55 \left( \frac{30}{55} \right)^{(t-7)/4}.$$

By **3 PM**, the body has warmed to **78.6°F**, while it has warmed to **85°F** by **6 : 15 PM**, approximately.

10  $\sin(\arctan(\sqrt{x-1})) = \sqrt{\frac{x-1}{x}}$