Last update: Thu Oct 12 13:33:45 MDT 2006 /m147.fa06/handouts147/t1_147_A13/review_suggestions_2_tex

1 This list is now in final form.

2 Test #2 is

Friday
10/13/06.

We've agreed to start the test at 0715, a whole 25 minutes early.

3 The test will cover the material of Assignments #22 – #36. roughly, that is, chapter 4 and sections 5.1, 5.2.

This means that a problem such as

$$\mathbf{tan(3}\boldsymbol{x}\mathbf{)}\Big|_{\boldsymbol{\pi/12}}^{\boldsymbol{\pi/9}} \mathbf{=?}$$

could appear on the part devoted to testing you on the **unit circle.**

Be sure you are with it about:

(a) Periodically compounded interest

(b) Continuously compounded interest and the situations that are mathematically identical.

(c) Where the functions **sin**, **cos**, **tan**, **sec**, **csc**, and **cot** come from unit-circle-wise.

(d) Where logarithms come from and the use of the *Laws of Logarithms.*

(e) Solving logarithmic and exponential equations.

(f) Deriving a formula for an exponentially-varying quantity.

(g) The clock-face facts for trigonometry.

(h) "Mommy, what's half-life?"

4 Comments on problems in the MATH-143 Test #3 for 12/6/02 (in the Old-Test collection).

(a) Problem 1 - With-calculator interest compounded periodically (not continuously) and how to split up the APR.

(b) Non-calculator half-life. ("Mama, what's half-life?")

(c) Problems 3, 4 and 5 - Algebra with Laws of Logarithms

(d) Problem 6 - No-calculator elementary exponential-change modeling - the four-hour multiplier and the one-hour multiplier. 6(c) is to discover the relevant exponential equation, then solving it by algebra.

(e) Problems 7 and 8 - No-calculator graphing from the friendly-faces list and the section-2.4 moves. Note that, unlike the corresponding text problems, these problems wants the intercepts, found by algebra.

(f) Problem 9 - solve an exponential equation.

(g) Problem 10 - find an inverse.

5 Comments on problems in the MATH-143 Test #3 for 11/18/05 (in the Old-Test collection).

(a) Problem 1 - with-calculator compound-interest problem (with some features different from those of problem 1 in the 12/6/02 exam).

6 Comments on problems in the MATH-143 Final Exam for 12/18/02 (in the Old-Test collection).

(a) Problem 1 - with-calculator compound-interest problem.

(b) Problem 2 - with-calculator exponential-equation solution.

(c) Problems 8 and 9 - exponential and logarithmic algebra similar to difference-quotient algebra.

(d) Problem 10 - another no-calculator logarithmic equation. When you believe you've solved the equation, check your solution back in the original equation.

7 Comments on problems in the MATH-147 Test #1 for 6/22/01 (in the Old-Test collection).

(a) Problem 6 - the clock table from memory.

8 Comments on problems in the MATH-147 Test #2 for 7/6/01 (in the Old-Test collection).

(a) Problems 1 and 2 - the clock table from memory.

9 Comments on problems in the MATH-147 Test #3 for 7/20/01 (in the Old-Test collection).

(a) Problems 1 and 2 - the clock table from memory.

(b) Problem 7(a) - a section 5.2 problem (no calculator – this is an geometry-aided algebra problem.

(c) Problem 8 - trig friendly faces and the section-2.4 "moves".

(d) Problem 9 - a MATH-170 sort of problem.