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

2 Test #1 is

Friday
9/22/06.

3 The test will cover the material of Assignments #1 – #21, and ___, roughly, that is, sections 1.2-1.8 and 2.1-2.8 and ___.

4 The MATH 143 tests in the old-test collection are probably most like the test we will have. Click here for a review-problem set for a MATH-143 Test #1 from last February.

The text-book comments on this review sheet pertain to the old edition of our textbook, so ignore them.

5 Comments on problems in the MATH-143 Test #1 for 9/21/05.

(a) Calculator problem 1 concerns triangle computations.

(b) Problem 3 - laws of exponents, our corporate Achilles heel.

(c) Problem 4 - check answers back in the original equation.

(d) Problem 5 - parentheses and LEAST Common Denominators.

(e) Problem 6 - complex fractions, common denominators, and laws of exponents.

(f) Problem 7 - calculus-style factoring and COLDEST POWER.

(g) Problem 8 - Pythagoras and similar triangles. Here you need to make it very clear which similar-triangle pair you're using.

(h) Problem 9 - check answers back in the original equation.

(i) Problem 10 - sign-change-chart gig. Section 1.7, like. Your instructor is just fascinated with problems like this.

(j) Problem 11(a) was real hard for the class that took this test. I want you to be different.

6 Some of the problems on MATH-143 Test #2 (10/26/05) are relevant to us as well.

(a) Problem 1 - average rate of change (section 2.5)

(b) Problem 3 - and you are supposed to know the formula for the **Difference Quotient**, like from your memory. This ***TI*** formula, you don't have to know, but you should be able to knock of this Assignment #16 problem easily.

(c) Problem 4 - function composition (2.7) and inverses (2.8)

(d) Problem 5(a) - an easy section 1.8 problem.

(e) Problem 5(b) - the famous section-2.4 "moves"

(f) Problem 5(c) - first identify and sketch the graph of $\boldsymbol{x^2 + y^2 = 36}$. Then think about what happens if we replace all $\boldsymbol{x}$ in this equation by $\boldsymbol{3x}$ (not $\boldsymbol{9x}$). Sketch the 5(c) graph.

(g) Problem 5(d) - don't plot points, use the $\boldsymbol{x_{vertex}}$ formula or something to make an accurate two- or three-point graph.

(h) Problem 6 - ungraphing problems. Hint: the quadratics' leading coefficient is neither $\boldsymbol{+1}$ nor $\boldsymbol{-1}$ in the parabola problems.

(i) Problem 7 - maximize the revenue. Several have said they have no clue about such problems, in spite of the *grueling* eternities we've spent on them in class. It's not too late to *get* a clue about these find-the-parabola's-acme (or zenith or nadir) problems.

7 Click here for an Assignment-#16 answer key.

8 Parabolic max-min problems on the old tests:

(i) MATH-143 Test #2 (10/26/05): problem 7

(ii) MATH 143 Final 12/12/05: problem 18.

9 Check out MATH-143 Test#3 for 11/18/05. Relevant-to-us problems:

(a) Problem 2 on a simple difference quotient (as on Assignment #16). I did not expect that MATH-143 class to know the difference-quotient formula – but you guys are different: I *do* expect you to know the difference-quotient formula.

(b) Problem 3(a), on $\boldsymbol{f^{-1}}$ is like the one I botched up in class on Monday.

10 Check out the MATH-143 Final Exam for 12/12/05. Relevant-to-us problems:

(a) Problem 5, yet anotherf simple parabolic difference quotient. The big problem for this class was getting $\boldsymbol{-f(x)}$ in with correct signs on all the terms.

(b) Problem 9 – ungraph the parabola.

(c) Problem 14 – the charter-school quadratic formula.

(d) Problem 16 – a non-linear inequality which depends on getting right

(i) Least Common Denominator

(ii) Factoring

(iii) A sign-change chart, or some such aid.

(e) Problem 18 – a (parabolic) max-min problem.

11 The MATH-143 Test #1 for 9/27/02 is **all** relevant to us at our current state of progress. Unfortunately it has no parabolic max-min problems. I regret posting it – I could have just added on the max-min problem and had us a nice Test #1.

12 The MATH-143 Test #2 for 11/4/02 has relevant-to-us problems:

(a) Problem 1 – graph a revenue parabola.

(b) Problem 2 – actually a section-1.7 inequality problem with sign-change chart, etc.

(c) Problem 7 – inverse function.

13 The MATH-143 Final for 12/18/02 has relevant-to-us problems:

(a) Problems 7, 8, 9 – function-substitution notation. These could have been Assignment #16 problems.