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

2 Test #2 is

Thursday  
3/23/06.

3 The test will cover the material of Assignments #1 – #30, with emphasis on #17 – #30.

4 Be sure you know

(a) how to compute difference quotients

(b) the page-164 graph-equation pairs (remember we added  $y = \sqrt{4 - x^2}$ ). This information is not on the text's endpapers, but it should be.

(c) the section-2.5 moves. Somebody ought to make a single blue table of them all together. This information is not on the text's endpapers, but it should be.

(d) how to put section 2.5 and page 164 together for problems like 2.5: 25-40.

(e) how to graph a quadratic function.

(f) how to UNgraph a quadratic function ( $a \neq \pm 1$  often).

(g)

(h)

(i)

5 In the end-of chapter tests:

(A) For Chapter 1 (page 132)

(a) Problem 10

(b) Problem 11 (b) is a section-3.1 problem

(c) Problem 16

(B) For Chapter 2 (page 244)

(a) Problem 1

- (b) Problem 2
- (c) Problem 4: that is, find  $NQ$  when  $x = 2$ .
- (d) Problems 5-11
- (e) Problem 12: all parts are fair game. Parts (a) and (b) relate to problem 54, page 242. In 12(c) they want the slope of the line connecting the points on the graph.

(C) For Chapter 3 (page 328)

- (a) Problem 1 is a page-164 friendly with section-2.5 moves.
- (b) Problem 2 is just like the Monday pop quiz.
- (c) Problem 3: a section 3.3 problem
- (d) Problems 5 and 6 both have complex zeros, but you can work down to a quadratic reduced polynomial without having to deal with complex numbers.

6 In the old-tests collection:

(A) Test #2 (10/26/05) parts that are fair game:

- (i) Problem 3
- (ii) Problem 4
- (iii) Problem 5
  - (a) Section 1.8: graph this circle equation.
  - (b) Page-164 gallery of friendlies along with section-2.5 shifts and flips.
  - (c) A circle squeezed in the  $x$ -direction.
  - (d) Vertex-and- $y$ -intercept graph of a parabola.
- (iv) Problem 6: in this type of problem, look for points with integer coordinates
  - (a)  $y = a(x - h)^2 + k$ , where likely  $a \neq 1$ .
  - (b)
  - (c)
  - (d)  $y = a(x - h)^2 + k$ , where likely  $a \neq -1$ .
- (v) Problem 7 is a classic:
  - (i) spot a slope
  - (ii) get the demand-line formula
  - (iii) get a revenue formula
  - (iv) In part (c), Jumbo's *cannot* charge anyone the theoretical price for one pizza...

(B) Test-#3 (11/18/05) fair-game parts:

- (i) Problem 2
- (ii) Problem 3: for part (b) you can use long division to rewrite the formula for  $f$  as

$$f(x) = 5 + \frac{10}{x - 3},$$

and then you can see that the graph will be related to the graph of  $y = \frac{1}{x}$  with a right-3 shift, a vertical stretch, and then a vertical up-5 shift.

- (iii) Problem 4: last fall, many students missed points on this problem by omitting to write down the *factorization* after they had chased down all the zeros. Problem 8: you should be able to locate (c), (d), and (h) among the graphs. When we get to section 4.1, you should be able to match up all the equations and graphs.

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