

Math 1241 Fall 2011: Topics for Test #3 (Secs. 2.4 – 2.7, 3.1)

Suggestions for studying:

- Review the topics listed below and look up anything that seems unfamiliar
- Work the listed review problems
- Since the review problems do not cover all topics, spend some time reviewing your notes and the MyMathLab assignments
- Spend as much time as you can actually working out problems – practice, practice, practice!
- Seek help. Come to my office hours and/or check on tutoring in the Center for Academic Success

Topics:

Section 2.4	* Find x-intercepts * Use information about 1 st - and 2 nd -derivatives to sketch the graph of a function. * Find a quadratic function $f(x) = ax^2 + bx + c$ when given a point on the graph and the max or min point
Section 2.5	* Determine the objective and constraint equations for an optimization problem * Solve an optimization problem if given the objective and constraint equations
Section 2.6	* Set up and/or solve optimization problems that do not involve constraint equations
Section 2.7	* Find revenue function when given the demand equation * Solve optimization problems involving revenue, cost, and/or profit
Section 3.1	* Find derivatives using the product rule * Find derivatives using the quotient rule * Find the equation of the tangent to a curve at a given point * Find the point(s) where the slope of a curve is equal to a given value
Section 3.2	* Find derivatives using the general power rule

Suggested Review Problems:

Chapter 2 Pg. 194	23 – 32, 55 – 61, 63
Chapter 3 Pg. 225	1 – 3, 7 – 10, 12 - 15