Studyguide for Midterm Exam No. 1, October 1 2008
Business Algebra Math 1090

1 Material

The exam will cover 0.1 - 0.7, 1.1 - 1.3, 1.5, 1.6, 2.1, 2.2. A good check list for review are the key terms and formulas at the end of chapter 0 and 1. You will also need to know how to solve a quadratic equation, and how to find the vertex of a parabola.

Make sure you know how to do the problems on the quizzes (you can find solutions on my web page) and homeworks. The majority of the problems on the exam will be very similar to those problems.There will be a problem on the exam very similar to the homework problems from Section 1.3 and 1.5.

Note that the answers to odd problems are in the back of the book, so you can use these problems to practice. Also note that for each chapter in the book there is a review section where you can find more problems to practice on.

2 Algebraic expressions

There will certainly be a problem involving exponents and a problem involving roots. If you need to practice this, look at 0.3, Problems 35 - 53 (odd problems), and 0.4, Problems 33 - 45.

Also, there will be a problem involving algebraic fractions, such as 0.7, Problems 9-35 (see Chapter 0.7 for methods how to deal with them).

3 Linear functions and (systems of) equations

You should be able to

- solve a linear equation or inequality,

- find the line through 2 given points (1.3, 35, 37),

- determine when two linear functions are parallel, perpendicular to each other, or neither (1.3, 39 -43)

- solve a system of linear equations in 3 variables (1.5, 27 - 31).

- manipulate functions (1.2, 35 - 41)

4 Applications to business

- revenue, cost and profit function, how they are related to each other, and how to set them up, such as in problems 1.6, Problems 1-13.

- break even analysis

- set up a supply and demand function and find the market equilibrium (1.6, Problems 49 - 57).

5 Quadratic equations and functions

- quadratic formula, and apply it in a given problem to find the solutions to a quadratic equation (2.1, Problems 21-27)

- find the vertex of a parabola, and determine whether it is a maximum or minimum. (2.2, Problems 7-11)