MATH 104/184: Week 6 Learning Goals
October 5, 2013

Learning Goals

This week has two key topics. We will cover *price elasticity of demand*, which is not covered in the text. While such elasticities can be a big topic, we will cover it in an introductory way, and use only the notes I will post online. Secondly, we will introduce exponential growth, especially as applied to continuous compound interest. This material is in section 6.8 and a short set of notes on continuous compound interest.

The suggested problems will help you build these skills. I will post an extra set of problems for the price elasticity of demand section and for the continuous compound interest section.

The specific learning goals for this week are that by the end of the week and review homework, you should be able to:

1. use the logarithmic derivative of a function $f(x)$ to compute relative rates of change of $f(x)$ per unit change of x;

2. compute the *price elasticity of demand* and use it to determine the direction revenue changes when there is a change in price;

3. solve problems involving price elasticity of demand;

4. compare and contrast linear growth and exponential growth;

5. solve problems involving continuously compounded interest.

Suggested Problems and Assignments

Suggested Problems: This week, all suggested problems from the text are:
  Chapter 6.8: 1, 10, 11,13, 16, 25, 30, 38*.
  (* means the problem is hard or is a proof-type question)
  There will also be a hand-out with problems on price elasticity of demand, and on continuous compounding.
  Webwork Homework: You will be asked to do a WebWork on this material.