Dror Bar-Natan: Classes: 2004-05: Math 157 - Analysis I:

## Homework Assignment 8

Assigned Tuesday November 2; due Friday November 12, 2PM, at SS 1071

Required reading. All of Spivak's Chapter 8.

**Recommended reading.** All of Spivak's Chapter 9.

**To be handed in.** From Spivak Chapter 8: 1 (odd parts), 6, 8, 13.

**Recommended for extra practice.** From Spivak Chapter 8: 1 (even parts), 2, 5, 14, 15.

**Just for fun.** There is quite a substantial gap between "continuous" and "differentiable". In fact there are functions that are continuous at every point, but differentiable in none! In fact, in some sense, the majority of continuous functions are nowhere differentiable! Do a web search for "nowhere differentiable" and see if the world wide web agrees with my assertions, and if it can provide some further explanations.