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

## Homework Assignment 13

Assigned Tuesday January 11; due Friday January 21, 2PM, at SS 1071

Required reading. All of Spivak's chapters 13 and 14.

**To be handed in.** From Spivak Chapter 14: 1 (odd parts) and 2 (odd parts).

**Recommended for extra practice.** From Spivak Chapter 14: 1 (even parts) and 2 (even parts).

In class review problem(s) (to be solved in class next Tuesday). Problem 2ii of Spivak Chapter 14: Find the derivative of the following function:

$$F(x) = \int_{3}^{(\int_{1}^{x} \sin^{3} t \, dt)} \frac{1}{1 + \sin^{6} t + t^{2}} dt$$

(if you feel it is necessary, pretend that you've heard of the function  $\sin t$  and that  $(\sin t)' = \cos t$ ). **Just for fun.** This homework assignment can read your mind! See the web version for details.