

## Homework Assignment 6

Assigned Tuesday October 19; due Friday October 29, 2PM, at SS 1071

**Required reading.** All of Spivak's Chapter 6.

**To be handed in.** From Spivak Chapter 6: 1(i)-(iii), 3, 12, 14

**Recommended for extra practice.** From Spivak Chapter 6: 1(iv), 4, 10, 13, 16 parts (a) through (c).

**Just for fun.** Solve Spivak's problem 16 parts (d) and (e) and also the following problem:

**Problem.** Could there be a non-constant continuous function defined on the entire "unit" interval  $[0, 1]$ , which is constant on certain open subintervals of  $[0, 1]$  whose total length is exactly equal to 1? (Obviously, I wouldn't be asking this question if the answer wasn't \_\_\_\_).