MATH 140A, WINTER 2009. HOMEWORK 9. DUE WEDNESDAY MARCH 11.

Read Rudin Chapter 4 up to the end of 4.34.

Rudin Chapter 4, problems 5, 6, 7.

H1. Suppose E and Y are metric spaces, $p \in E$ and $f : E \to Y$ is a function. Prove that f is continuous at p **if and only if** for every sequence $\{x_n\}$ in E which converges to p, the sequence $\{f(x_n)\}$ in Y converges to $f(p)$.