Math 441, Introduction to Numerical Analysis
Fall 2006

Homework 5

due Tuesday, October 17

A. Read: Sections 4.4, 3.4.

B. Hand in:

1. pages 193-197, exercises 5 (prove or give counter-examples), 13, 21 (see also 10), 43.

2. pages 106-107, exercises 2 (this is Brouwer's fixed point theorem in R^1), 4(a,c), 13 (provide an interval on which the function you have to define is a contraction), 20 (a).

C. Optional: Read about the *logistic map* at
`http://en.wikipedia.org/wiki/Logistic_map` or
`http://mathworld.wolfram.com/LogisticMap.html`.

D. Practice (do not hand in):

- pages 193-197, exercises 2, 3, 8, 36.
- pages 106-107, exercises 2, 4, 7, 12.