Take Home Exam 1
Math 203-A Fall 2008

Instructions: Answer the questions below and turn in your solutions (with any Matlab programs and/or plots attached) at the beginning of class on Tuesday, Sep 30th. You may use Matlab (or Maple if you know it), your textbook and class notes to help you answer the questions. You may not use your classmates or other materials (e.g., textbooks or websites). If you have questions about wording or basic Matlab issues, contact me.

1. Exercise 8, p 50 (Hint: We set things up in class)
2. Page 81, 16-18:
   - For 16, use `graphsBif.m` from Sep 16th.
   - For 17, use `cobweb2.m` from the class website. You can print the figure and reference it in your answer.
   - For 18, the "proof" will be a graphical argument, but see if you can back it up with some algebra.
3. Continuing with the logistic map, repeat the experiment we did in Chapter 6, for $0 \leq \lambda \leq 4$ and with the initial point in the orbits being $x_0 = 1/2$ (instead of 0)- Modify `ch6experiment.m`.