Assignment 4.

Due Thursday, May 3.

Reading: Chs. 6 and 9.

1. Exercise 3 of Chapter 6.
2. Exercise 5 of Chapter 6.
3. Exercise 8 of Chapter 6.
4. This is a mini-project, to get you started thinking about your term project. Exercise 7 of Chapter 9 describes the SIR model of epidemiology. Try to devise the equations that it asks for and explain why this might be a reasonable model of the spread of infectious diseases. If you are not sure what the appropriate equations are, you may search the internet or other sources to see what others have done. Write a 1-2 page report about your findings. Be sure to cite any references that you use. If you can solve your mathematical model using Matlab or analyze it using the types of techniques discussed in class, include that with your discussion. Remember that you are limited to 1-2 pages of reasonable size type, however, so include only the most important and interesting details.

Please write this on a separate sheet from the rest of your homework and bring it with you to class on Thurs., May 3.