LB 118, Sections 003 & 004, Spring 2016
Homework 3 (due 02/01)

Instructions: Please review the section of the course syllabus on homework before writing up your solutions to the problems below. Do not write on or turn in this document. Instead, write your solutions on looseleaf or blank paper. Homework is due at the start of class.

Please read through sections 1.4 and 1.5 of the textbook and carefully work through each of the Explore exercises before attempting the problems below.

1. Solve Exercise 1.4.5 part (a).

2. Solve Exercise 1.4.8.

3. Solve Exercise 1.5.1.

4. Solve Exercise 1.5.4. Notes: In part (a), you are asked to plot $A_{t+1} - A_t$ versus $\sqrt{A_t}$. Please use the following values where there are blanks:

$$A_2 = 20 \quad \text{and} \quad A_6 = 172.$$

You can create a plot with R and RStudio (rather than by plotting points by hand). Here's an example of how you plot points in RStudio:

```
x_data = (1,2,3,4,5)

y_data = (1,4,9,16,25)

plot(x_data,y_data)
```

You will see the plot appear in a window. You can save the plot, print it, and include it with your homework. You are welcome to plot the points by hand instead for this homework problem, but eventually you'll need to learn how to produce a plot with RStudio.

We will go over the solutions to this assignment in class on Monday.