

Stat W 4201, Spring 2016
Assignment #1: Due February 3

1. Chapter 1, problem 17
2. Chapter 1, problem 21: complete parts (a) and (b) for two articles instead of five. In addition, for each article provide a brief summary of the study design and conclusions. If you have trouble finding articles in your own field or just do not know where to begin, check any recent issues of major medical journals, such as *The New England Journal of Medicine*.
3. Chapter 1, problem 25, part (b)
4. Use the data provided in Problem 25 in Chapter 1 to answer the following questions.
 - (a) Set up the null and alternative hypotheses to address the research question described.
 - (b) Use 1,000 simulations to perform a randomization test for testing the hypothesis in (a). What is your p-value?
 - (c) Draw the reference distribution of your test statistic based on 1,000 simulations.
 - (d) Write a brief summary of your findings and possible recommendations for the researchers.
5. Chapter 2, problem 12
6. Chapter 2, problem 14
7. Chapter 2, problem 16
8. Chapter 2, problem 23