

Show **all** of your work on this assignment and answer each question fully in the given context.

Please staple your assignment!

You will want to understand Exercise 1 from Section 2.1 before attempting the following questions. Your answer should be written in complete sentences. It is possible that a drawing or table may help make your thoughts more concrete or illustrate a concept that would be difficult to describe in words alone - if so I encourage you to use one.

1. **Chapter 2, Section 3, Exercise 1 (page 47)**
2. **Chapter 2, Section 3, Exercise 5 (page 47)**
3. **Chapter 2, Section 4, Exercise 2 (page 56)**
4. **Chapter 2, Exercise 7 (page 65)**
5. **Chapter 2, Exercise 11 (page 65)**
6. **JMP Assignment.**

Without laboring the point, computing is one of the most important parts of modern data analysis. A large part of data science simply wouldn't exist without the tools developed by scientists working at the intersections of computer science, mathematics, and statistics. Because of that, there will inevitably be parts of this course where a statistical computing tools are needed. SAS and R are the two main languages used by statisticians, with Python, Julia, F#, C++ and others making important contributions as well. SAS has a software called JMP ("Jump") that makes doing statistical analyses simpler - it is more powerful than Excel or your calculator but requires little in the sense of coding making the learning curve much lower. We will be using it this semester. There are labs in Snedecor Hall with the software pre-installed, but it is free for students and I encourage you to download a copy for yourself using the link below.

Download: <http://www.stat.iastate.edu/resources-2/software-sasjmp/statistical-software-jmp/>

Additionally, you may want to consider the following tutorials (they are very helpful):

Tutorials: <http://web.utk.edu/~cwiek/201Tutorials/>

The tutorials cover the following topics:

- Histogram and Box Plot
- Stem and Leaf Plot
- Normal Probability Plot and Goodness of Fit Test
- Calculating Summary Statistics of Quantitative Data
- Getting JMP Graphics into Microsoft Word

For this problem I am asking you to:

- (a) Download and install JMP or find a computer with it already installed.
- (b) Take a screen shot once you have it open. Print the screen shot and attach it to your homework.