Statistics 302 Spring 2014 Larget Assignment #2 posted January 29, 2014

Due Friday, February 7

Textbook Exercises

2.13, 2.14, 2.25, 2.31, 2.57, 2.58, 2.62, 2.66, 2.101, 2.112, 2.136, 2.138, 2.173, 2.176

Computer Exercises

Before completing these exercises, you will need to install the `ggplot2` library. Open R and do this one time only.

```
> install.packages("ggplot2")
```

To actually load the this package into your active session, type the following command. You need to do this each session.

```
> library("ggplot2")
```

Load the data set **SleepStudy** from the textbook into R.

R problem 1 Make a table of the variables *Stress* and *AlcoholUse*.

1. What proportion of students are in each alcohol use category?
2. What proportion of students in the high stress group report high alcohol use?
3. Display the data from this table in a bar graph that effectively compares the distribution of alcohol use for each stress group. Write the R code you used to create this graph.
4. Describe the patterns you see in the data.

R problem 2 Examine the variables *Drinks* and *LarkOwl*.

1. Find the mean, median, and standard deviation of the number of alcoholic drinks per week for the entire group of students.
2. Do the same as (1), but separately for each group of students that classify themselves as early risers (larks), night owls, or neither.
3. Create an effective display of the *Drinks* variable that shows how the distribution of number of driks per week varies among larks, night owls, and neither.
4. Describe the patterns you see in the data.