Let's investigate the amount of sugar and salt (measured in grams, g), and type (for adults vs children) in breakfast cereals. Use the following R command to import the data.

```
cereal<-read.csv("http://sites.williams.edu/bklingen/files/2015/05/cereal.csv")
```

Answer the problem a) through e). Show your work to receive full credit.

a) Use `head( )` and identify the names of all *four* variables in the data set (*remember, R is case-sensitive*). Also state whether each variable is categorical or quantitative. You may use `str()` to study type of variable.

b) Use `table()` to create a summary table of `Type` (C for children / A for Adult's cereal). Identify the number of children's cereals and adult's cereals in the data set.

c) Construct a boxplot of `Sugar`. Describe the overall shape of the distribution. Use R to find the five number summary of sugar amount.

d) Construct a histogram for the sugar amount with appropriate titles. How many cereals have a sugar contend more than 15g?

e) Now construct a histogram of sugar content *with 10 breaks*. Describe the overall shape of the distribution (such as unimodal, bimodal, uniform, symmetric, or right-skewed/left-skewed).

f) Construct a side-by-side boxplot of sugar amount by type. Include the screen shot of the plot in your homework submission. Discribe the shape of distribution for adult cereal (Type 'A')and children (Type 'C') cereal.

- Textbook Problem 2.29 Median versus mean. For each of the following variables, would you use the mean or median for describing the center of the distribution? Why? (Think about the likely shape of the distribution.)
  a. Salary of employees of a large university
  b. Time spent on a difficult exam
  c. Scores on a standardized test