Lab Assignment 8: Probability and Other Applets

Applets
For each applet, give the main point or purpose and something you learned from using the applet.

1. Correlation:
     Scroll down to guessing correlations under Instructional Demos.

2. Regression
   - http://www.math.csusb.edu/faculty/stanton/m262/regress/regress.html
     Select the animate options (slope, SE, and SD_x)
     You can guess the correlations here.

3. Venn Diagrams
   - http://www.stat.sc.edu/~west/applets/Venn1.html

4. Dice Rolling
     Scroll down to the Dice Rolling Simulation under Instructional Demos.

5. Let’s Make a Deal
   - http://www.stat.sc.edu/~west/javahml/LetsMakeaDeal.html

Other types of Data Description
Open the data set CarPoll.JMP from JMP-IN Data.

1. Look at the distribution of Age, click on the red arrow next to age and choose CDF Plot. The CDF plot produces a curve that represents the sum of the histogram probabilities (bounded between zero and one just like probabilities).
   - According to the CDF plot, approximately what percentage of people in this dataset are younger than 25 years?
     Approximately 14%
   - What percentage are older than 40 years?
     Approximately 5%
   - Compare the values found to the above parts to those based only on the histogram. Both the CDF (Cumulative Distribution Function) and histogram plots reveal the same information.