LAB 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:
   
   (a) http://davidmlane.com/hyperstat/desc_biv.html
   Scroll down to guessing correlations under Instructional Demos.

2. Regression
   
   (a) http://www.math.csusb.edu/faculty/stanton/m262/regress/regress.html
   (b) http://www.ruf.rice.edu/~lane/stat_sim/comp_r/index.html
   Select the animate options (slope, SE, and SDx)
   (c) http://www.ruf.rice.edu/~lane/stat_sim/regbyeye/index.html
   You can guess the correlations here.

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

4. Dice Rolling
   
   (a) http://davidmlane.com/hyperstat/probability.html
   Scroll down to the Dice Rolling Simulation under Instructional Demos.

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

Other types of Data Description

Open the data set CarPoll.JMP from JMP-IN Data. 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).

6. According to the CDF plot, approximately what percentage of people in this dataset are younger than 25 years?

7. What percentage are older than 40 years?

8. Compare the values found to the the above parts to those based only on the histogram.