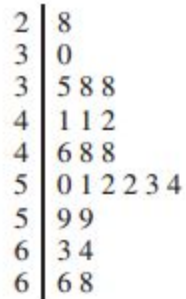


1. Eleven Pueblo-area companies who've hired HSB graduates in the previous two years were asked to provide starting salaries for Business majors. The companies provided the following data (annual salaries in thousands of dollars): {41,44,42,50,45,58,36,48,56,47,38}
 - a. Produce a **stemplot**
 - b. Find the **median**
 - c. Calculate the **mean**
 - d. Calculate the **standard deviation**
 - e. Produce a **95% confidence interval** to estimate local mean starting salaries.
 - f. A recent nationwide survey of Business majors reported a mean starting salary of \$52.5k. **Conduct a Hypothesis Test** to determine if local (Pueblo-area) salary data indicate starting salaries for Business graduates in the Pueblo job market are significantly different from the national average? Use $\alpha=0.05$.

2. A study found Americans consume an average of 11.4 pounds of chocolate per year. Assume annual chocolate consumption follows the normal distribution with a standard deviation of 3.6 pounds. What is the probability of a randomly selected person consuming ...
 - a. less than 7 pounds of chocolate
 - b. more than 13 pounds of chocolate
 - c. between 7 and 13 pounds of chocolate

3. An environmental group conducted a study to determine whether birds in a certain region were ingesting food containing unhealthy levels of lead. A biologist classified lead levels greater than 6.0 parts per million (ppm) as unhealthy. The lead levels of a random sample of 23 birds in the region were measured and recorded. The data are shown in the stemplot below.

Lead Levels



Key: 2|8 = 2.8 ppm

- What proportion of birds in the sample had lead levels classified as unhealthy?
- The mean lead level of the 23 birds in the sample was 4.90 ppm and the standard deviation was 1.12 ppm. Construct a 95 percent confidence interval for the mean lead level of birds in the region.