Name: _____

Chapter 2: Descriptive Statistics Lab - Shoes

1. Record the number of pairs of shoes you and your classmates own.

Survey Results

2. Are the data discrete or continuous? How do you know?

3. Construct a frequency table and a histogram. Make 5-6 classes.

4. Calculate the following:

a. **mean** =

b. **standard deviation** =

6. Calculate the five number summary.

5. Describe the shape of the histogram.

Describe the number of modes: uniform, unimodal, bimodal, multimodal

Describe the symmetry: symmetric, skewed left, skewed right, uniform

7. Construct a box plot of data.

8.What does the shape of the box plot imply about the concentration of data?
Describe the symmetry

Describe the skew

Is any part of the boxplot particularly long? Why do you think that part of the boxplot is long?

Is any part of the boxplot particularly short? Why do you think that part of the boxplot is short?

9. Find potential outliers using the 1.5xIQR Rule. Mark the outliers on the boxplot.

10. What does the IQR represent in this problem?

11. a. Find the five number summary for the females b. Find the five number summary for the males

12. Construct two box-plots on top of each other, showing the outliers.

13. Describe the similarities and differences in the box plots.

14. Would you say that females own more pairs of shoes than the males in your class?