

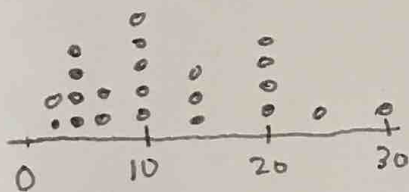
Name: _____ Hour: _____ Date: _____

Lesson 1.2: How many pairs of shoes do you own?

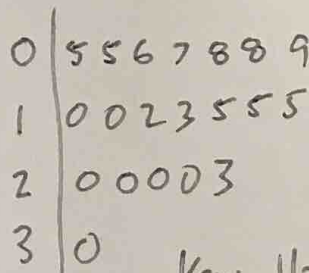


- How many pairs of shoes do you own? Mark your choice on the board. Females use a red marker. Males use a green marker.
- Is "Number of pairs of shoes" a categorical or quantitative variable?
- Enter the data at www.stapplet.com. Make a dotplot, stemplot, and histogram and sketch below.

DOTPLOT

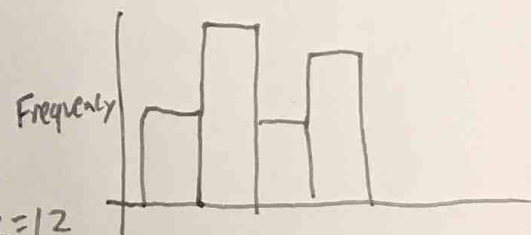


STEMPLOT



Key: | / 2 = 12
pairs shoes

HISTOGRAM



- Describe the distribution of the number of pairs of shoes for your class.

Shape: symmetric? skewed left? skewed right?

Outliers:

Center: mean? median?

Variability: Range?

In Lesson 1.3 we will learn a rule for identifying outliers

In Lesson 1.3 we will learn to calculate standard deviation & IQR.

- Which of the three types of display do you prefer? Why?

★ Discuss advantages or disadvantages of each

Name: _____ Hour: _____ Date: _____

6. How do the number of pairs of shoes for females and males compare? Start by separating the data.

Number of pairs of shoes – females

Number of pairs of shoes - males

Answers vary

7. Enter this data at stapplet.com. Be sure to make 2 groups (female and male).

8. Make dotplots, a side-by-side stemplot, and then histograms. Copy one of these graphs below.

Answers vary.

Be sure to use comparative words "less than" "greater than"

9. Compare the distributions of the number of pairs of shoes for females versus males. "similar"
Be sure to address shape, outliers, center, and variability.

Answers vary.

Lesson 1.2 – Displaying Quantitative Data

Important Ideas:

SHAPE: symmetric, skewed left, skewed right. Use -ly words.

Describe distribution:

Shape
Outliers
Center
Variability } + CONTEXT

Compare distributions

Use comparative words

Check Your Understanding:

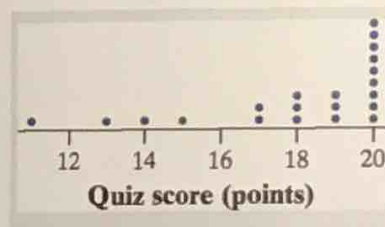
1. The dotplot displays the scores of 21 statistics students on a 20-point quiz.

(a) What percent of students scored higher than 16 points?

$$\frac{17}{21} = 0.81 \quad 81 \text{ percent}$$

(b) Describe the shape of the distribution.

skewed left



(c) Are there any potential outliers? Why?

The score of 11 is much lower than the rest of the data.

2. Here is a back-to-back stemplot of 19 middle school students' resting pulse rates and their pulse rates after 5 minutes of running.

Write a few sentences comparing the distributions of resting and after-exercise pulse rates.

Resting	After exercise
9888	6
8664110	7
8862	8 6788
60	9 02245899
4	10 044
	11 8
0	12 44
	13
	14 6

Shape: The distribution of resting pulse rates and after exercise pulse rates are both similarly skewed right.

Outliers: For resting pulse rates, 120 is a potential outlier, and for after exercise 146 is possible outlier

Center: The center is higher for after exercise

Variability: The variability for after exercise is a bit higher, with a range of 60 compared to 52.

Key: 8|2 is a student whose pulse rate is 82 beats per minute.

$$120 - 68 = 52$$

$$146 - 86 = 60$$