

Name Key

Thursday, April 20, 2017

Statistics Review-ADV

Write the letter of the term that best matches each statement. You may use a term more than once.

g. 1. The _____ is the middle number, or the mean of the two middle numbers, of the ordered data in a set.

n. 2. The _____ of the data set is the sum of the data divided by the number of pieces of data.

a. 3. Values that divide the data set into four equal parts are _____.

b. 4. Extremely high or low values in a data set are called _____.

e. 5. The _____ is the number or numbers that occur most frequently in a data set.

f. 6. A(n) _____ is an empty space or interval in a set of data.

h. 7. Data that are grouped together are called a(n) _____.

k. 8. The _____ of a set of data shows the arrangement of data.

c. 9. The difference between the largest value and the smallest value in a data set is the _____.

l. 10. A _____ is used to display data that is organized in intervals.

~~a.~~ quartiles

~~b.~~ outliers

~~c.~~ range

d. measures of center

~~e.~~ mode

~~f.~~ gap

~~g.~~ median

~~h.~~ cluster

i. dot plot

j. peak

~~k.~~ distribution

~~l.~~ histogram

m. box plot

~~n.~~ mean

The table shows the number of siblings the students in Elissa's class have. Use the table for Exercises 1-3.

1, 1, 1, 1, 2, 2, 2, 3, 3, 3, 4, 7 Total = 30

1. What is the mean of the data?

$$30 \div 12 = 2.5$$

Number of Siblings			
1	3	3	1
4	2	1	2
2	1	3	1

2. What is the median of the data?

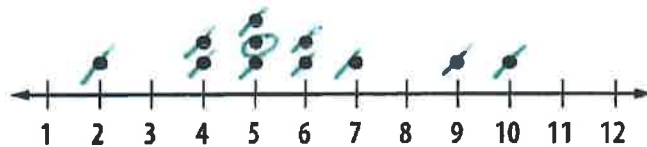
2

3. Which measure of center best represents the data?

median because it's not symmetric and has an outlier

Refer to the dot plot for Exercises 4-6.

Number of Fiction Books Read



2, 4, 4, 5, 5, 5, 6, 6, 7, 9, 10

4. What is the mode of the data?

5

5. What is the median of the data?

5

6. What is the range and the interquartile range of the data?

$$\text{range} = 10 - 2 = 8$$

Q3 - Q1

$$7 - 4 = 3 = \text{IQR}$$

7. The data below show the number of hours students spent reading in one month. Represent the data given below in a stem-and-leaf plot.

12, 15, 17, 20, 23, 24, 25, 25, 30, 31, 31, 32, 32, 35, 40, 40, 42, 44, 44, 47

Time Spent Reading (h)

Stem	Leaf
1	2 5 7
2	0 3 4 5 5
3	0 1 1 2 2 5
4	0 0 2 4 4 7

Key: 1 | 2 = 12

Use the table for Exercises 8-10.

8. Determine the mean of the data. Use the mean to summarize the center of the distribution.

$532 \div 8 = \$66.50$

Gym Shoe Cost (\$)			
65	39	48	41
57	153	67	62

122 192 115 103 +103 = 532

On average, gym shoes cost about \$66.50.

9. Which value is the outlier?

\$153

10. What is the mean cost **without** the outlier? Round to the nearest cent if necessary.

$532 - 153 = 379$

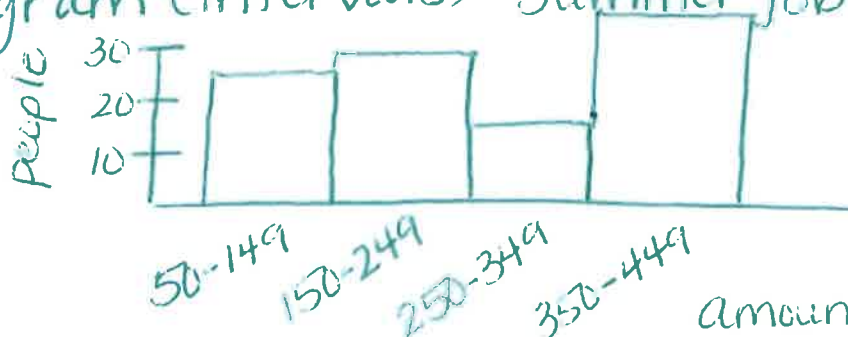
$379 \div 7 = 54.14$

\$54.14

11. Julio surveyed people about the amount of money they earned during their summer jobs. The results are shown in the table. Which type of display should Julio use to show the results? Draw one using the data in the table.

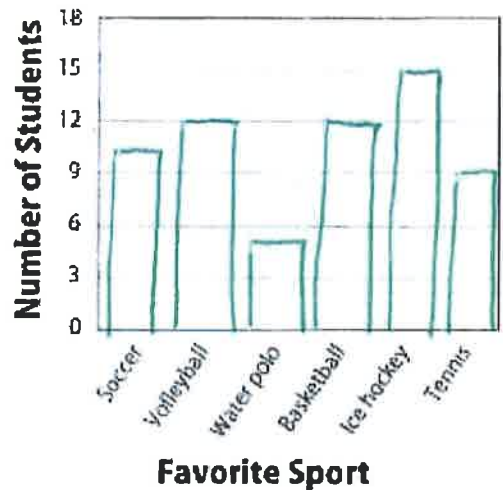
Amount Earned	People
\$50-\$149	25
\$150-\$249	28
\$250-\$349	15
\$350-\$449	32

histogram (intervals) Summer job earnings



12. The table shows the favorite sport of students. Represent the data in bar graph. Summarize and describe the data distribution using the mode.

Sport	Number of Students
Soccer	10
Volleyball	12
Water polo	5
Basketball	12
Ice Hockey	15
Tennis	9



Ice hockey is the most popular sport.

For Exercises 13–15, use the following set of data:

~~0, 13, 19, 12, 27, 54, 13, 25, 11, 8, and 14~~

8, 9, 11, 12, 13, 13, 14, 19, 25, 27, 54

13. What are the first and third quartiles of the data?

$$Q1 = 11 \quad Q3 = 25$$

14. What is the interquartile range of the data?

$$Q3 - Q1 = 25 - 11 = 14$$

15. The number of days a house is on the market before it sells in one neighborhood is listed below. Draw a box plot for the data.

~~110, 76, 40, 20, 27, 0, 120, 12, 45, 90, 36~~

0, 12, 20, 27, 36, 40, 45, 76, 90, 110, 120

