

# Unit 13 Review #2

Name: Key

## Section I: Mean, Median, Mode, Range, and Outliers

Complete the table. Round answers to the nearest hundredths place if necessary.

Data Set	Mean	Median	Mode	Range
1) <del>8, 15, 9, 7, 4, 5, 9, 11</del> 4, 5, 7, 8, 9, 9, 11, 15	8.5	8.5	9	11
2) <del>70, 61, 28, 40, 60, 72, 25, 31, 64, 63</del> 25, 28, 31, 40, 60, 61, 63, 64, 70, 72	51.4	60.5	None	47
3) <del>143, 236, 150, 143, 141, 143, 130, 134, 130, 148</del> 130, 130, 134, 141, 143, 143, 143, 148, 150, 236	149.8	143	143	106
Outlier in data set 3: 236	Which measure of center is impacted the most by the outlier in data set 3? Mean	Which measure of center would be best to describe the data in set 3? Median		

Solve by finding the missing measurement.

4) Tony has a score of 89 on his first 3 science quizzes. The score on his fourth quiz is 92. What score does he need on his fifth quiz to have an average of 90?

$$89 + 89 + 89 + 92 + x = 450$$

$$x = 91$$

5) You scored a 100, 74, and 36 on your first 3 Spanish Tests. What do you need to make on the fourth test to bring your average up to a 74?

$$100 + 74 + 36 + x = 296$$

$$x = 86$$

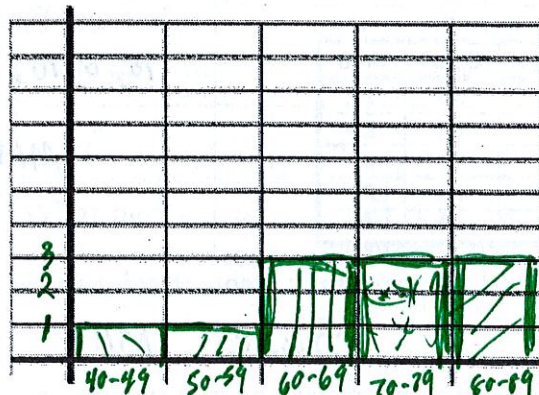
## Section II: Line Plots and Histograms

6) The scores on a math test were ~~70, 55, 61, 80, 85, 72, 65, 40, 74, 68, and 84~~.

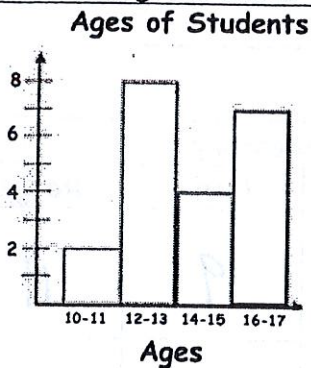


Create a frequency table and histogram for these test scores.

Score	Tally	Frequency
40-49		1
50-59		1
60-69		3
70-79		3
80-89		3



7) The histogram below shows the ages of students at the bowling alley.



a) Which interval does the median fall?

14-15

b) What is the mode?

12-13

c) How many total students were at the bowling alley?

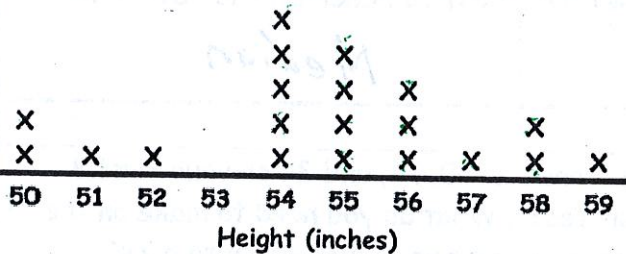
21

d) What percent of students are 14-15 years old?

19%

8) The height of each student in sixth grade was measured in inches, and the data is shown in the line plot. Use the line plot to answer the questions.

Height of 6th Graders (inches)



a) How many students were measured?

20

b) How many students are 56 inches tall?

3

c) How many students are less than 54 inches?

4

d) How many students are more than 54 inches?

11

e) What height was the most common?

54

f) What is the range of the heights?

9

Section III: MAD

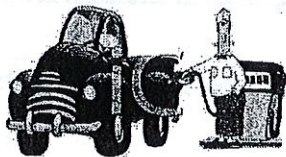
9) On five different tanks full of gas a pickup got 12, 15, 16, 12, and 15 miles per gallon.

Determine the mean absolute deviation for the miles per gallon.

Mean  
14

2, 1, 2, 2, 1

MAD = 1.6



10) The following scores were given to a dancer for her routine. Which round has a lower MAD?

Round 1: 8.4, 7.9, 9.1, 8.7, 9.1, 8.  
-13, .63, .57, .17, .57, .53

Round 2: 8.8, 9.0, 8.9, 8.7, 9.1, 9.1

Lower  
MAD

~13, .07, .03, .23, .17, .17  
~0.13



11) Emma and Sarah played 5 video games and recorded their scores in the table below.

Game Score		
Game	Emma	Sara
1	30	15
2	20	25
3	10	20
4	20	25
5	20	15

What was Emma's MAD?

10, 0, 10, 0, 0

MAD = 4

What was Sarah's MAD?

5, 5, 0, 5, 5

MAD = 4

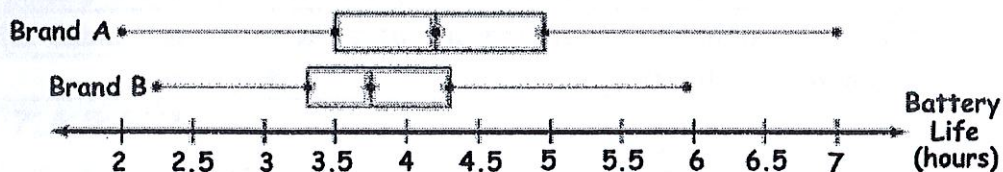
Which girl had the greatest mean absolute deviation for her scores? What does this mean?

Same MAD

64, 67, 74, 79, 79, 80, 85, 92, 94, 96, 96, 97

Section IV: Five Number Summary/ Box and Whisker Plots

12) The double box-and-whisker plot compares the battery life of two brands of cell phones.



12a) What percent of Brand A batteries have a battery life of 5 hours or more?

25%

12b) What percent of Brand B batteries have a battery life between 3.25 hours and 4.25 hours?

50%

13) Use data on time spent completing homework to answer questions below.

Time Spent on Homework (minutes)



Class A	Class B
64, 67, 74, 79, 79, 80, 85, 92, 94, 96, 97 <del>97, 97, 64, 26, 79, 79, 96, 87, 78, 80, 85, 92</del>	60, 62, 63, 65, 72, 80, 85, 93, 94, 96, 98



USE THE DATA TO ANSWER QUESTIONS:

	CLASS A	CLASS B
a) What is the range for each set of data?	33	38
b) What is the mode for each set of data?	79, 96	None
c) What is the mean of each set of data? (Round to the nearest hundredths place.)	<del>76.5</del> 83.58	78.91
d) What is the least time spent for each set of data?	64	60
e) What is the most time spent for each set of data?	97	98
f) What is the median for each set of data?	82.5	80

14) Use the data from #13 to determine the 5-Number Summary for both sets of data:

76.5 CLASS A

Lower Extreme (minimum)	Lower Quartile	Median	Upper Quartile	Upper Extreme (maximum)
64	<del>76.5</del>	82.5	95	97

CLASS B

Lower Extreme (minimum)	Lower Quartile	Median	Upper Quartile	Upper Extreme (maximum)
60	63	80	94	98

a) What percent of Class A scored above a 76.5?

75%

b) What percent of Class B scored higher than 63?

75%

c) What percent of Class A scored less than 82.5?

50%

d) What percent of Class B scored less than 94?

75%