

Statistical Reasoning
Collecting and Analyzing Data

Key

Name: _____ Date: _____ Class: _____

Measures of Center and Spread Practice

1. Twelve AMDM students at North Cobb High School have watched the following number of hours of television the past week:

- 10 5 32 4 8 3 5 4 2 1 6 1

a. Find the mean: 6.75 b. Find the median: 4.5

2. The following chart gives the high scores of a popular video game

RSH	1109	DAV	1210
ABC	1038	BRN	930
XYZ	1020	CSR	1180
HYB	1038	SAS	1029
VAC	1006	AAA	936

a. Find the mean 1049.6

b. Median 1033.5

c. Mode 1038

3. The following are the number of millions Mr. H's mixtapes sold each month for the past year.

January	10	July	15
February	9	August	9
March	6	September	7
April	3	October	4
May	12	November	5
June	13	December	8

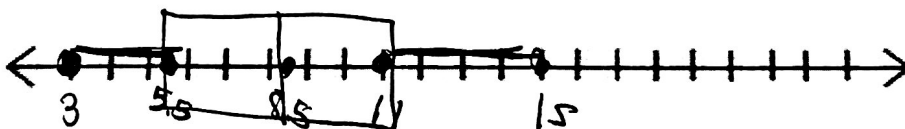
Find the following statistics and draw a box plot in the provided space.

a. Minimum: 3 b. Q1: 5.5 c. Median: 8.5

d. Q3: 11 e. Maximum: 15

f. Range: 15 - 3 = 12 g. IQR: 11 - 8.5 = 2.5

h. Boxplot:



4. A group of seven students from Mr. Denison's 1st block class was randomly selected and asked to indicate the number of study hours each put in before taking a major exam. The data are as follows:

Mean 2.71
 Median 3
 Mode 3, 1
 Range 5-1=4

Student	Hours of Study
1	4
2	3
3	3
4	5
5	1
6	1
7	2

min Q1 med Q3 max
 1 1 3 4 5

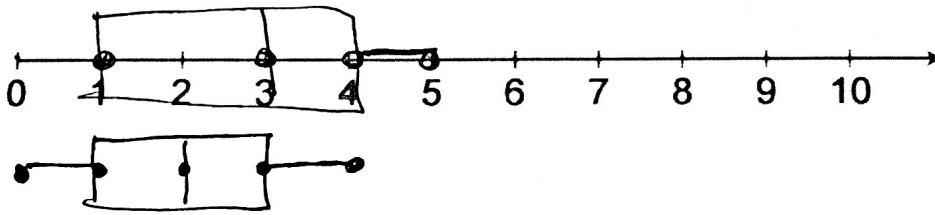
5. A group of seven students from Mr. H's 3rd block class was randomly selected and asked to indicate the number of study hours each put in before taking a major exam. The data are as follows:

Mean 2
 Median 2
 Mode 1, 3
 Range 4-0=4

Student	Hours of Study
1	2
2	0
3	1
4	3
5	1
6	3
7	4

min Q1 med Q3 max
 0 1 2 3 4

6. Make a comparative box and whisker plot for the 2 classes.



7. According to the box and whisker plot comparison, which class studies harder?

Mr. Denison

8. Find the standard deviation of the both classes.

Test scores for Denison	$x - \bar{x}$	$(x - \bar{x})^2$
4		
3		
3		
5		
1		
1		
2		
Standard Deviation:		<u>1.50</u>

Test scores for Hybart	$x - \bar{x}$	$(x - \bar{x})^2$
2		
0		
1		
3		
1		
3		
4		
Standard Deviation:		<u>1.41</u>

9. According to the box and whisker plot comparison, which class studies harder?