

Name: Guide Date: _____

Find the mean, median, mode, range, upper quartile, lower quartile, and interquartile range. Then draw a box and whiskers plot.

✓✓✓✓✓✓✓✓
23, 6, 8, 14, 28, 8, 13, 28

48, 23, 97, 36, 27, 72, 48, 41, 58

1. Put the data in order:

6, 8, 8, 13, 14, 23, 28, 28

10. Put the data in order:

16 2. Mean: *calculator*

11. Mean:

13.5 3. Median: *calculator*

12. Median:

8 & 28 4. Mode: *Both showed up twice*

13. Mode:

22 5. Range: *28 - 6*

14. Range:

8 6. Upper Quartile: *calculator*

15. Upper Quartile:

25.5 7. Lower Quartile: *calculator*

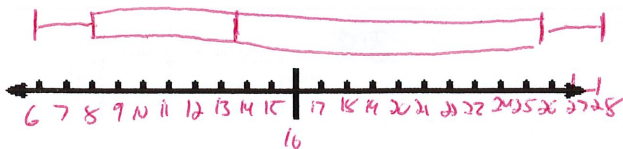
16. Lower Quartile:

17.5 8. Interquartile Range: *25.5 - 8*

17. Interquartile Range:

9. Box and Whisker plot:

18. Box and Whisker plot:



19. Is there an outlier? (Show Work)

$8 - 1.5(17.5) = -18.25$
 $25.5 + 1.5(17.5) = 51.75$ *NO*

20. Is there an outlier? (Show Work)

21. Determine the MAD.

22. Determine the MAD.

$1) \bar{x} = 16$

$2) 3) 10, 8, 5, 3, 2, 7, 12, 12$

$4) 6 \div 8 = \sqrt{7.75}$

1. Your scores on the first 4 tests in Algebra were 85, 80, 90, and 93. What do you need to make on the 5th test to have a 90 average in the class?

$$\frac{85 + 80 + 90 + 93 + x}{5} = 90$$

$$\frac{348 + x}{5} = 90$$

$$\begin{array}{r} 348 + x = 450 \\ -348 \quad -348 \\ \hline x = 102 \end{array}$$

$$348 + x = 450$$

2. Which measure of central tendency is MOST EASILY affected by outliers?

3. The table below shows the running times for science-fiction movies. Find the Mean Absolute Deviation of the data.

1) $\bar{x} = 100$

Running Times for Movies (min)					
98	87	93	88	126	108

2+3) 2, 13, 7, 12, 26, 8

4) $\frac{68}{6} = 11.33$

4. The table shows the scores from the top 10 players of our Homecoming basketball game.

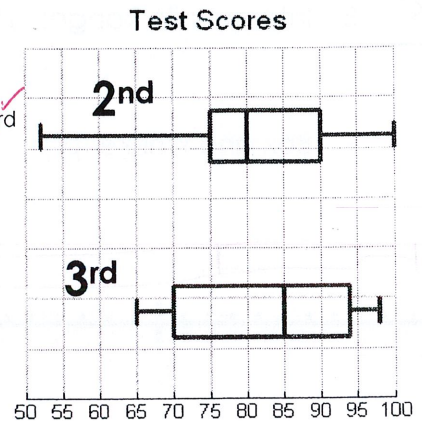
Which player scored more than the upper quartile of the data?

- A. Matt
- B. Michael
- C. Jim
- D. Bobby

Player	Points	Player	Points
Michael	12	Dave	9
Brendan	6	Heath	15
Andrew	21	Jack	3
Jim	14	Bobby	10
Andre	5	Matt	18

For #5-6, use the graph to the right.

5. Which statement below is NOT true?
- A. 2nd period had the highest score on the test ✓
 - B. The median for 2nd period is 5 less than the median for 3rd ✓
 - C. The LQ for 2nd period is 5 less than LQ for 3rd period
 - D. The UQ for 3rd period is 94 ✓



6. Fill in the blanks:
- The median for 2nd period is _____
 - The median for 3rd period is _____
 - The lowest score for 3rd period is _____
 - The lower quartile for 2nd period is _____
 - The spread of the middle 50% for 2nd period is _____