Name: _____ Date: _____

Central Tendency and Spread Homework

1. 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 #2-3, use the graph to the right.

2. Fill in the blanks:
   - The median for 1st period is _____
   - The median for 2nd period is _____
   - The lowest score for 1st period is _____
   - The lower quartile for 2nd period is _____
   - The spread of the middle 50% for 2nd period is _____
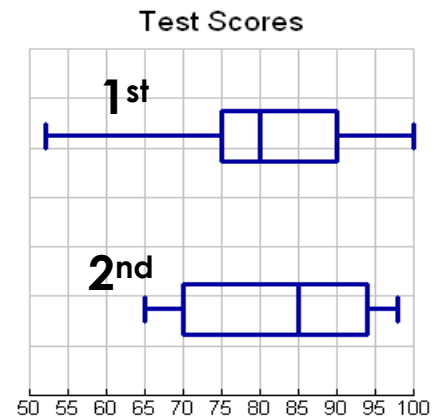
Test Scores

3. Which statement below is NOT true?
   A. 1st period had the highest score on the test
   B. The median for 1st period is 5 less than the median for 2nd
   C. The LQ for 1st period is 5 less than LQ for 2nd period
   D. The UQ for 2nd period is 94

Sample A: 2, 4, 4, 4, 8, 8, 10, 12, 12, 14   Sample B: 0, 1, 4, 7, 9, 9, 10, 12, 12, 15

4. Which statement accurately compares the two samples?
   A. The mean for Sample A is 1 greater than the mean of Sample B.
   B. The mean for Sample B is 1 greater than the mean of Sample A.
   C. The mean for Sample A is 0.1 greater than the mean of Sample B.
   D. The mean for Sample B is 0.1 greater than the mean of Sample A.

5. 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?

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

7. Forty-five people were asked about how many miles they walked in one week. The results are shown in the graph. How does the median number of miles walked for boys compare with the median number of miles walked for girls?
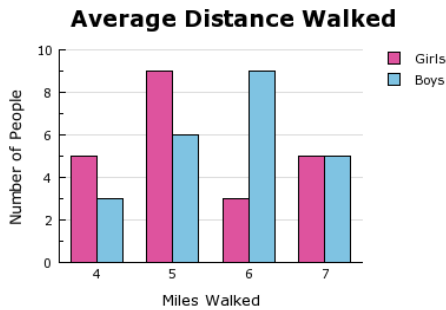
8. The table below shows the running times for science-fiction movies. Find the Mean Absolute Deviation of the data.

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

9. The summary statistics for all of the workers at a steel factory are shown. Three sample groups were taken from each of the three shifts. For which sample group is the mean deviation greater than that of the population? **(yes you have to find the MAD for each shift separately)**

Steel Factory Workers Ages

Mean Deviation for ALL shifts: 11.23

Shift 1	Shift 2	Shift 3
23	19	21
19	22	23
50	24	25
49	40	40
67	45	35
34	29	19
30	33	70
59	29	40
40	39	22
33	59	23

Adapted from: Mathematics Vision Project