Name: _____ Date: _____

Graphical Displays for Data Homework

Kirsten plays softball in the spring. Each game, she records the number of times she reaches first base without being called out. Use the data in the table to solve problems 1 -5.

Game	Number of times at first	Game	Number of times at first
1	5	10	0
2	1	11	1
3	2	12	1
4	0	13	0
5	2	14	5
6	2	15	5
7	4	16	4
8	4	17	0
9	0	18	4

1. Create a dot plot showing the number of times Kirsten reached first base in each game.	2. Find the minimum, maximum, first quartile, and third quartile of the data set.
	
	    a. Minimum:
	
	    b. Maximum:
	
	    c. First Quartile:
	
	    d. Third Quartile:

3. Create a box plot showing the number of times Kirsten reached first base.	4. Find the interquartile range of the data. Are there any outliers?
5. Kirsten wants to analyze her performance using this data. She wants to understand the range of her data and the frequency of different results. Which graph, the dot plot or the box plot, will be most useful to Kirsten? Explain.	

Adapted from: Walch Education Resources: CCGPS Coordinate Algebra Teacher Resource Binder

Dr. Singh is a veterinarian. He records the weights of each pet. The weights of 10 German shepherds, all 4-year-old males, are in the table below, rounded to the nearest pound. Use this information to solve problems 6-10.

Weight in pounds
80
78
82
84
81
89
83
81
81
82

6. Create a histogram showing the weights of Dr. Singh's German shepherds.	7. Find the minimum, maximum, first quartile, and third quartile of the data set. a. Minimum: b. Maximum: c. First Quartile: d. Third Quartile:
8. Create a box plot showing the weights of the German shepherds.	9. Find the interquartile range of the data. Are there any outliers?

10. Dr. Singh wants to analyze the weights of the German shepherds. He wants to understand the center and spread of his data, so that he has a better idea of an expected weight for a 4-year-old male German shepherd. Which graph would be most useful to Dr. Singh? Explain.

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. 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

3. 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 _____

Test Scores

2nd

3rd

50 55 60 65 70 75 80 85 90 95 100
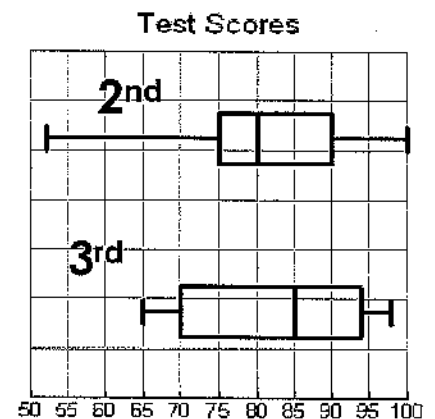
Sample A: 2, 4, 4, 4, 8, 8, 10, 12, 12, 14   **Sample B:** 0, 1, 4, 7, 9, 9, 10, 12, 12, 15

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.

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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?

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

6. Currently, you have made a 75, 83, and a 78 on your tests in Spanish. What do you need to make on the next test in order to get an average of an 80?

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?

Average Distance Walked
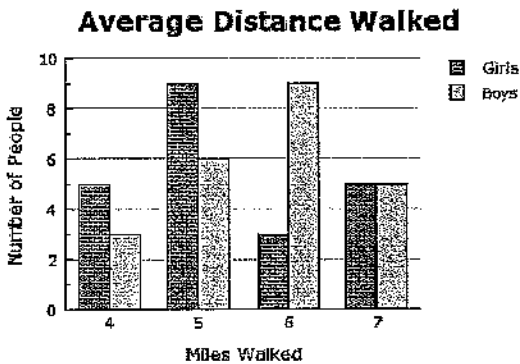
8. Find the following for this set of data: 5, 11, 16, 8, 4, 7, 15, 6, 11, 7

Mean : _____

Median : _____

Mode : _____

Range : _____

Q1 : _____

Q3 : _____

IQR : _____

Box and Whisker Plot :

_____