

Name: _____ Date: _____

1. Identify the Five-Number Summary number for the data of Johnny’s test scores and draw the Box & Whisker plot.

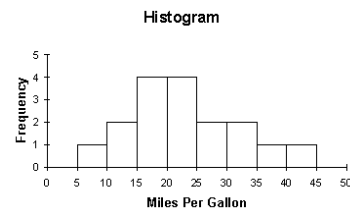
92, 96, 97, 83, 92, 58, 93, 88, 77, 48, 65, 80, 71

What is the range? ____ IQR? _____ MAD? _____
 Are there any outliers in the data set?

2. The table gives the low temperatures in Chicago on eight randomly selected winter days. Which measure of central tendency (mean or med) probably gives the LEAST ACCURATE prediction of a "typical" low temperature on a Chicago winter day? (Hint: Check for outliers and then decide if the mean or median would be better)

Chicago Lows							
17	25	28	12	16	55	18	22

3. Describe the shape of the distribution.



4. Construct a frequency table from the following information:
 A survey of 200 9th and 10th graders was given to determine what their favorite subject was. 72 said Math (50 which were freshmen), 38 said Social Studies (20 which were sophomores), and 40 freshmen and 50 sophomores said PE was their favorite.

	Math	SS	PE	Total
9 th Grade				
10 th Grade				
Total				

Based on your table above, answer the following questions:

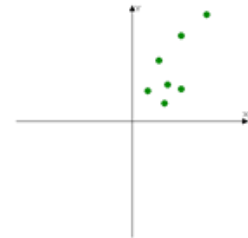
- What are the marginal relative frequencies for each subject?
 Math: _____ SS: _____ PE: _____
- What is the joint relative frequency a 9th grader likes PE? _____
- What is the joint relative frequency a 10th grader likes Math? _____
- What is the joint relative frequency a 9th grader likes Social Studies? _____
- If a student likes Math, what is the conditional probability that they are a freshman? _____

5. Match the correlation coefficient with each of the following graphs.

$r = -.04$

$r = .72$

$r = -.93$



6. Determine if the following situations represent a positive, negative, or no correlation.

a) Number of hours studying for the SAT and your score. _____

b) The distance you drive and the number of stars in the sky. _____

c) The temperature and the length of daylight hours for the day _____

7. Tell whether the following situations are causation: (yes or no)

a) The number of boats on Lake Allatoona and the number of cars on the street _____

b) The hours you work and the money you make _____

c) The time spent studying and the A on the test _____

8. The following table shows a person study hours versus their test scores.

Hours studied (x)	2	5	1	0	4	2	3
Grade on test (y)	77	92	70	63	90	75	84

a) Use your calculator to find the line of best fit for the data above. _____

b) What is the value of r ? _____ Is this a good fit? _____

c) Use the equation to predict the test grade for someone who studies 5.5 hours. _____

d) Use your equation, how many hours would you predict someone studied if they made a 98 on the test?