7. Sara is taking a test in her science class and her math class, if the class average in science was a 72% and the standard deviation was 8%, compared to an average of 78% and a standard deviation of 2% in her math class. Which tests did she do better on compared to the rest of the class given her score on the science test was a 90% and he math test score was a 83%? (Explain)

SCIENCE

$Z = \frac{90-72}{8}$

$Z = 2.25$

MATH

$Z = \frac{83-78}{2}$

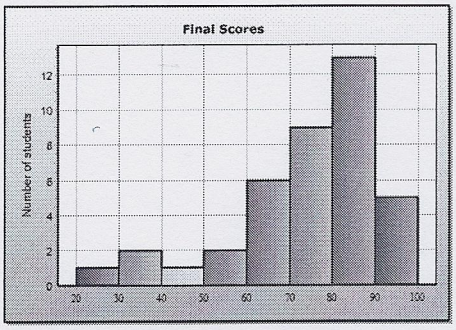
$Z = 2.5$

Sara did better in math b/c she scored more S.D above the mean in math.

8. Describe two variables that would be considered categorical and two variables that would be considered quantitative.

C	Q
COLOR	HEIGHT (IN)
DAY	TIME (SEC)
GENDER	WEIGHT (PDS)
ETC....	ETC....

9. In the histogram shown below describe the shape, the best measure for center and spread, and then explain how you think the mean compares to the median.



- Skewed Left
- MEDIAN FOR CENTER
- IQR FOR SPREAD
- MEAN IS LESS THAN THE MEDIAN B/C SKEWED LEFT

10. For the table of quiz scores I want you to find the 5-number summary, the mean, and standard deviation and explain why there are or are not any outliers.

8	12	14	16	12	4
28	15	14	17	11	9

$\mu = 13.\overline{3}$

MED = 13

$\sigma = 5.65$

IQR = 5.5

$Q_1 = 10$

$Q_3 = 15.5$

$Q_1 - 8.25 = 1.75$

$Q_3 + 8.25 = 23.75$

MAX = 28

MIN = 4

1.5(IQR) = 8.25

28 IS AN OUTLIER