Name:_____   Period: _____   Review sheet for **Statistics Unit**

Determine whether the following are categorical or quantitative.

1. Favorite team   _____   3. The eye color of your classmate _____
2. Number of students at your school _____   4. IQ of your classmates   _____

5. Using the chart to the right,

What is the median? _____

What is the mean? _____

What is the IQR? _____

What is the range? _____

Year	Inches of Snow
1970	15
1971	16
1972	17
1973	15
1974	15
1975	16
1976	16
1977	18
1978	15
1979	17
1980	15
1981	17
1982	16
1983	17
1984	15

6. Number of matches per box:

In the graph **below**, each dot shows the number of matches in a box. According to this graph, what is the median number of matches in a box? _____

How many have 49 or less matches in a box? _____

How many have at least 50 matches in a box? _____

Number of matches per box
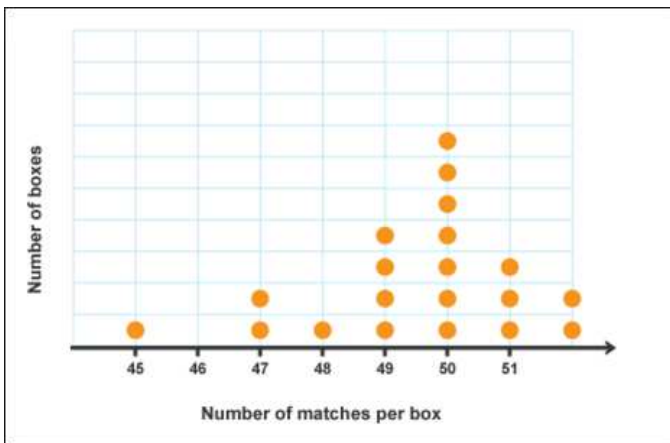
7. Sarah has been clothes shopping each Saturday for the past 6 weeks. She spent the following amounts:

$109, $72, $99, $15, $99, and $89.

a. Calculate the mean and median of Sarah's purchases. Mean: _____ median: _____

b. Which measure of central tendency would Sarah tell her parents to convince them that she is not spending too much money on clothes? Explain.

c. Which value would Sarah tell her parents to convince them that she needs an increase in her allowance? Explain.

8. Jamal and Tim run track and compete in one-mile races. Their finishing times, in minutes, are shown in the box plots below.
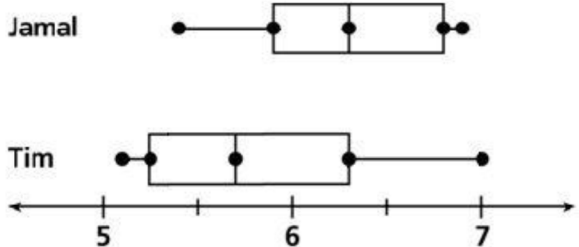
a. Who has the fastest time? _____

b. Who has the slowest time? _____

c. Make a convincing argument that Jamal is the faster runner.
_____
_____

9. Which direction does the shape of the distribution of test scores on a really easy test tend to be skewed and why?
_____
_____

10. Ms. Willis surveyed her class on who owned a cell phone and/or a MP3 player. Here are the results from the survey:
10 students owned a cell phone and an MP3 player, 9 students owned a cell phone but not an MP3 Player
6 students owned a MP3 player and no cell phone, 5 students did not own a cell phone or a MP3 player

Create a two-way frequency table below.

	MP3 Player	No MP3 Player	Total
Cell Phone			
No Cell Phone			
Total			

Use the table above to answer the following:

a) What percent of students have a cell phone, but not an MP3 player? _____

b) What percent of students have neither a cell phone nor an MP3 player? _____

c) What percent of students have an MP3 player, but not cell phone? _____

d) What percent of students have a cell phone and an MP3 player?   _____

e) What percent of students have cell phones? _____

f) What percent of students do not have MP3 players? _____

11. A middle school has 500 7th and 8th graders. They were asked whether they prefer fiction or nonfiction books. The results are shown in the relative frequency table below

| Age	Fiction	Nonfiction	Total
7th graders	0.32	0.11	0.43
8th graders	0.38	0.19	0.57
Total	0.70	0.30	1.00

Use the table to answer the following question:

a) How many 8th graders prefer fiction?

b) How many 7th graders were surveyed?

c) How many students prefer nonfiction?

12. Lisa's grades for tests were 73, 85, 90, 95, 98, 82, 80. She would like to have an A average, but she has one more test to take. Can she get an A average?
Explain_____

_____

13. John made a 68, 66, 74, 77, and 70 on 5 quizzes. What does he need to make on the last quiz to get a 93 average?

_____

14. Name the shapes of the following distributions:

_____   _____   _____
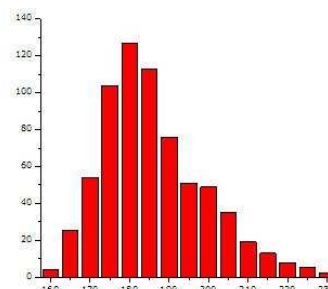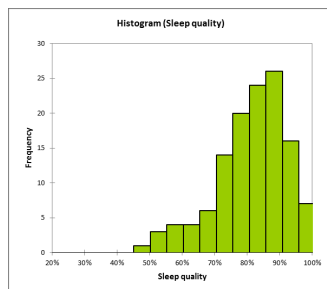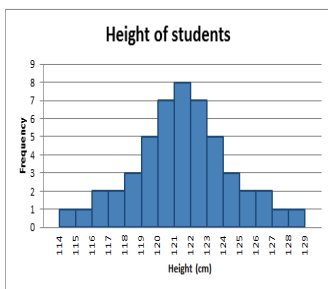
15. The following is the data of retirement ages of police detectives. Create a histogram.
50, 52, 53, 53, 54, 55, 55, 56, 56, 56, 57, 57, 58, 59, 59, 60, 60, 62, 62, 62, 63, 63, 64, 65, 65, 65, 66, 66, 66, 67, 67

Retirement Ages of Police Detectives

Age	Tally	Frequency
50–52		
53–55		
56–58		
59–61		
62–64		
65–67		

16. The following are test scores of a student for the 2015-2016 school year
88, 84, 80, 79, 90, 60, 91, 91, 97

a) Complete a 5 number summary for the data

b) Using the outlier formula, numbers lower than _____ would be outliers.

c) Using the outlier formula, numbers higher than _____ would be outliers.

d) Using this information, Are there any outliers?_____ the outlier is/are _____