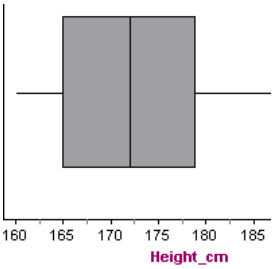
KEAS 10.3 Worksheet
Shapes of Distributions

Name _____
Per ____ Date _____

For each distribution, determine the shape of the distribution, determine which measure of center is the most appropriate, and which measure of center is greater (mean or median).

1.

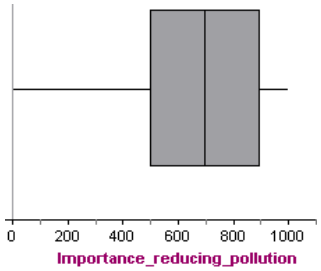


a.) Shape:

b.) Measure of center:

c.) Which is greater?

2.

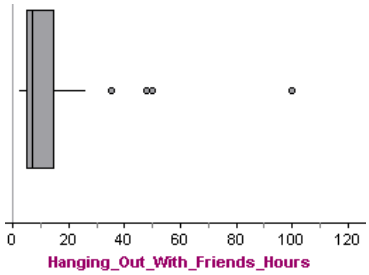


a.) Shape:

b.) Measure of center:

c.) Which is greater?

3.

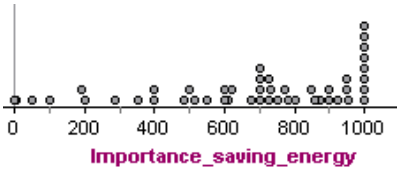


a.) Shape:

b.) Measure of center:

c.) Which is greater?

4.

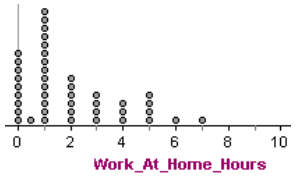


a.) Shape:

b.) Measure of center:

c.) Which is greater?

5.

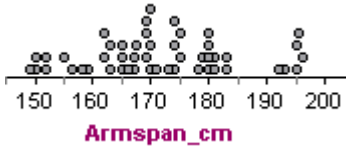


a.) Shape:

b.) Measure of center:

c.) Which is greater?

6.

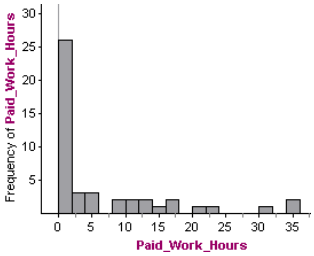


a.) Shape:

b.) Measure of center:

c.) Which is greater?

7.

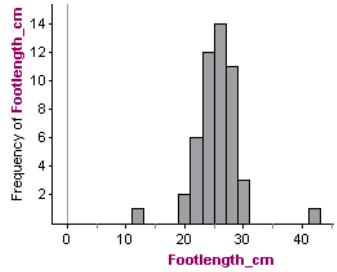


a.) Shape:

b.) Measure of center:

c.) Which is greater?

8.

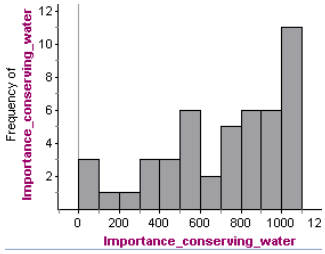


a.) Shape:

b.) Measure of center:

c.) Which is greater?

9.



a.) Shape:

b.) Measure of center:

c.) Which is greater?

The mean and median are listed for a distribution, determine the shape of the distribution. Justify your answer.

10. travel time to work; mean = 53.25 and median = 42.5	11. age of students; mean = 16.97 and median = 17	12. reaction time; mean = 0.251 and median = 0.376
13. Number of texts sent in a day; mean = 11 and median = 15	14. Grade level; mean = 11 and median = 11	15. Hours watching TV in a week; mean = 15.75 and median = 9

16. Students were asked to measure their arm span in centimeters. A random sample of 18 students yielded the results below.

Armspan (cm)	
60	166
60	173
76	174
111	175
146	177
156	177
160	181
160	183
160	185

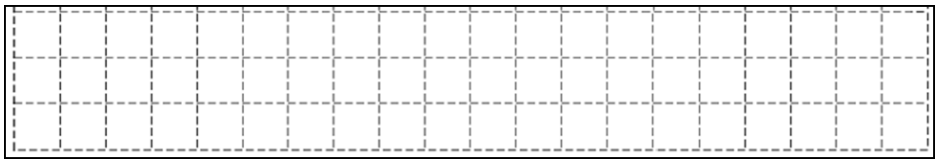
a.) Calculate the mean and the median of the distribution.

b.) Based on the part (a) what is the shape of the distribution?

c.) Calculate the range and IQR.

d.) Determine if there are any outliers:

e.) Graph the boxplot:



f.) Graph the histogram, starting at 60 with a bin width of 10.

g.) Now that you have graphed the distribution, is your answer to part b the same?