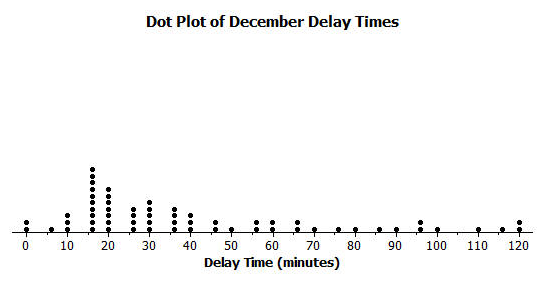
Practice 4 – Statistics Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Measuring Variability for Skewed Distributions (IQR)

Lesson Summary

* The center of a skewed data distribution is described by the median.
* Variability of a skewed data distribution is described by the interquartile range (IQR).
* The IQR describes variability by specifying the length of the interval that contains the middle of the data values.
* Outliers in a data set are defined as those values more than (IQR) from the nearest quartile. Outliers are usually identified by an “\*” or a “•” in a box plot.

Transportation officials collect data on flight delays (the number of minutes a flight takes off after its scheduled time). Consider the dot plot of the delay times in minutes for BigAir flights during December 2012:



1. How many flights left more than minutes late?
2. Is this data distribution symmetrical or skewed?
3. Draw a box plot over the dot plot of the flights for December.
4. What is the interquartile range, or IQR, of this data set?
5. The mean of the flight delays is approximately minutes. Do you think that minutes is typical of the number of minutes a BigAir flight was delayed? Why or why not?
6. What percentage of flights with delays of more than hour. Were there many flight delays of more than hour?