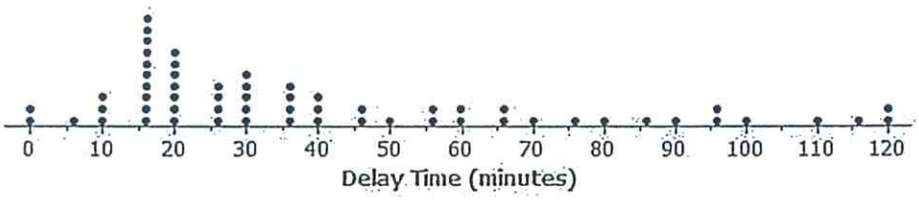
Lesson 7 Problem Set Name_____hr_

Lesson Summary

- Non-symmetrical data distributions are referred to as skewed.
- Left-skewed or skewed to the left means the data spreads out longer (like a tail) on the left side.
- Right-skewed or skewed to the right means the data spreads out longer (like a tail) on the right side.
- 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 50% of the data values.
- Outliers in a data set are defined as those values more than 1.5(IQR) from the nearest quartile. Outliers are usually identified by an "*" or a "•" in a box plot.

Consider the following scenario. 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 60 BigAir flights during December 2012:



1. How many flights left more than 60 minutes late?

2. Why is this data distribution considered skewed?

3. Is the tail of this data distribution to the right or to the left? How would you describe several of the delay times in the tail?

4. Draw a box plot over the dot plot of the flights for December.

5. What is the interquartile range, or IQR, of this data set?

6. The mean of the 60 flight delays is approximately 42 minutes. Do you think that 42 minutes is typical of the number of minutes a BigAir flight was delayed? Why or why not?

7. Based on the December data, write a brief description of the BigAir flight distribution for December.