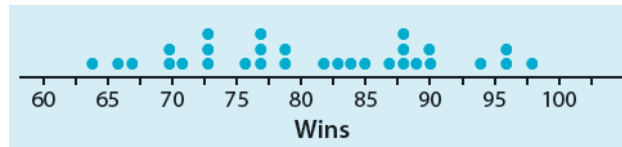


Name _____ Date _____ Period _____ Score _____

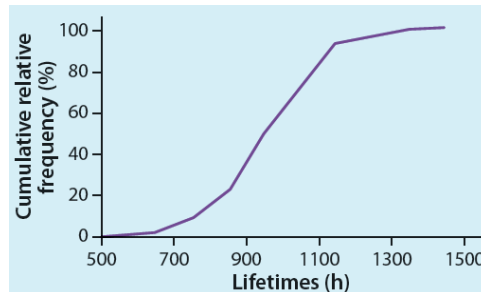
1. The dotplot show the number of wins for each of the 30 Major League Baseball teams in the 2014 season:



- a) Find the percentile for the Boston Red Sox, who won 71 games.
- b) The New York Yankees' number of wins is at the 60th percentile of the distribution.
How many games did New York win?
2. A random sample of 20 students from a large high school was conducted to survey how many pairs of shoes they own. Below is the recorded data:

14 7 6 5 12 38 8 7 10 10
10 11 4 5 22 7 5 10 35 7

- a) One student reported owning 22 pairs of shoes. Find the percentile.
- b) Determine the number of pairs the student owned who is at the first quartile (Q1).
3. The following graph is a cumulative relative frequency graph showing the lifetimes (in hours) of 200 lamps.



- a) What is the percentile for a lamp that lasted 900 hours?
- b) Estimate the 60th percentile of this distribution.

1. _____

a) _____

b) _____

2. _____

a) _____

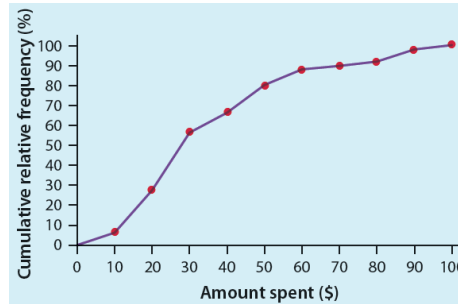
b) _____

3. _____

a) _____

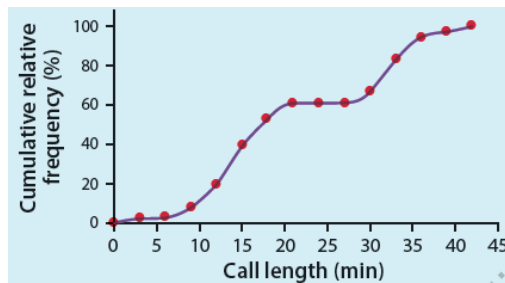
b) _____

4. The following is a cumulative relative frequency graph of the amount spent by a sample of 50 grocery shoppers at a store. 4.



- a) What is the percentile for the shopper who spent \$19.50? a) _____
- b) Estimate the 80th percentile of the distribution. b) _____

5. The graph displays the cumulative relative frequency of the lengths of phone calls made from the math department last month. 5.



- a) About what percent of calls lasted 30 minutes or more? a) _____
- b) Estimate the interquartile range (IQR) of the distribution. b) _____

6. The heights of 25 students have a mean of 67 inches and a standard deviation of 4.29 inches. Find the z-score of the student who is 76 in. 6. _____

7. Based on data from the 2010 U.S. Census, the percent of residents aged 65 or older in the 50 states and the District of Columbia has a mean of 13.26% and standard deviation of 1.67%. 7.

- a) Find the z-score for Colorado with 9.7% older residents. a) _____
- b) Interpret the meaning of the z-score in context. b) _____

- c) The z-score for Florida is 2.60. What percent of its residents are 65 or older? c) _____