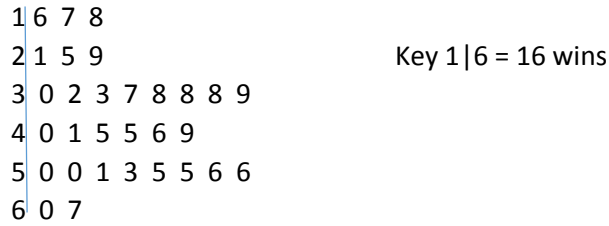
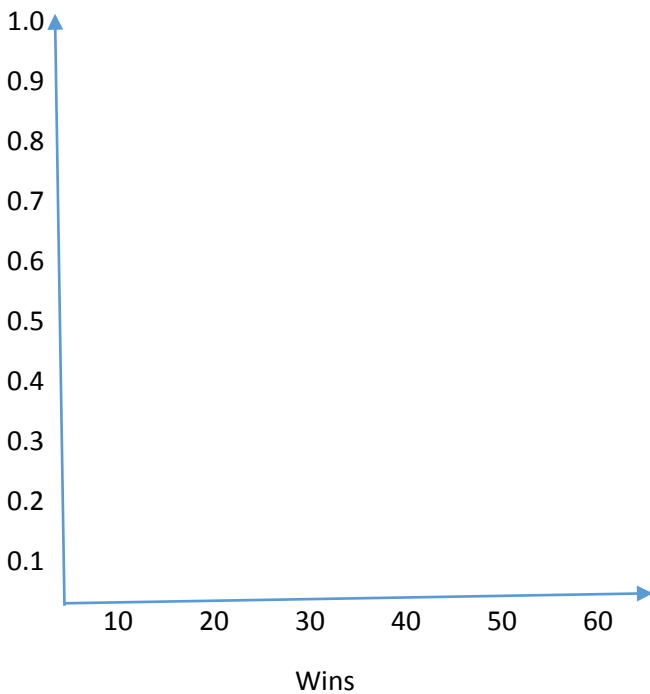


The following stemplot shows the number of wins by each of the 30 NBA teams in 2014-2015 season. Answer the questions based on the stemplot.



1. Find the following percentiles
 - a) Los Angeles Lakers: 21 wins
 - b) Atlanta Hawks: 60 wins
 - c) Cleveland Cavaliers: 53 wins
2. From Chapter 1, find the five number summary from the stemplot only.
3. Complete the table and make a Cumulative Relative Frequency Graph (Ogive)

Wins	Frequency	Relative Frequency	Cumulative Frequency	Cum Rel Freq
10-19	3			
20-29	3			
30-39	8			
40-49	6			
50-59	8			
60-67	2			



- a) What percent of teams did the Clippers beat in number of wins if they had 56 wins?
- b) Show the IQR (25%, 50%, 75%) on the graph.

From the stemplot, find the z-score and interpret for the following teams if the mean is 40 wins and the standard deviation is 14.5 wins:

4. Knicks: 16 wins
5. Warriors: 67 wins
6. Celtics: 40 wins
7. Nets: 38 wins

ACT vs. SAT Using z-scores!!!

There are two major tests of (so-called) readiness for college, the ACT and the SAT. ACT scores are reported on a scale from 1 to 36. The distribution of ACT scores in recent years has been roughly normal with mean $\mu = 20.9$ and standard deviation $\sigma = 4.8$. SAT scores were reported on a scale from 600 to 2400. SAT scores have been roughly normal with mean $\mu = 1490$ and standard deviation $\sigma = 355$.

- 1) Tonya took the ACT and scored 30. Jose took the SAT and scored a 1940. Who did better relative to their test: Jose or Tonya? Show your work and explain.
- 2) Jose scores 1940 on the SAT. Assuming that both tests measure the same thing, what score on the ACT is equivalent to Jose's SAT score? Explain.
- 3) Reports on a student's ACT or SAT usually give the percentile as well as the actual score. Tonya scores 2050 on the SAT. What is her percentile? Show your method.
- 4) You scored 27 on the ACT. Equivalent SAT score?