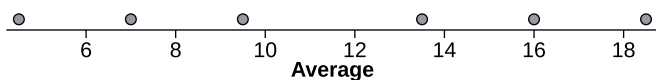


1.
 - a. The population is all U.S. adults. The sample is the 1,200 U.S. adults that were selected.
 - b. Statistic: $\hat{p} = 0.054$.
 - c. Parameter: $p = 0.039$.
2.
 - a. The population is all fans that attend this game. The sample is the 50 fans selected.
 - b. Convenience sample. The manager did not use random chance to select fans. Instead, she simply contacted fans that were easy to reach.
 - c. No, 88% is likely an overestimate of the true percent of fans that buy food while at the game because the fans in the expensive suites are more likely to spend money on food.
3.
 - a. One single player who had 33 home runs.
 - b. A statistic: $\bar{x} = 31.7$ home runs
 - c. Sampling distribution of $\bar{x}$.
 - d. One random sample of 3 players with a mean of 32 home runs.

4. a.

Sample	Average Number of Years
(2, 7)	4.5
(2, 12)	7
(2, 25)	13.5
(7, 12)	9.5
(7, 25)	16
(12, 25)	18.5

b.



- c. Sampling distribution of $\bar{x}$.
5.
 - a. No, this is the distribution of sample data from one sample.
 - b. No, in order for this to be the true sampling distribution of $\bar{x}$ we would need to include all possible samples of size 20 from the population.
6. B
7. A