Chapter 1

1.2 Descriptive statistics summarizes a set of data. Inferential statistics makes inferences about populations from samples.

1.3a The political choices of the 50,000 registered voters
b The political choices of the 400 voters interviewed
c Statistic

1.4a The complete production run
b 600 chips
c Proportion of the production run that is defective
d Proportion of sample chips that are defective (3.5%)
e Parameter
f Statistic
g Because the sample proportion is less than 5%, we can conclude that the claim is true.

1.5 Survey graduates of your major as well as others and ask each person to report his or her highest starting salary offer. Use statistical techniques to compare results.

1.6a Flip the coin 100 times and count the number of heads and tails
b Outcomes of flips
c Outcomes of the 100 flips
d Proportion of heads
e Proportion of heads in the 100 flips

1.8a The population consists of the fuel mileage of all the taxis in the fleet.
b The owner would like to know the mean mileage.
c The sample consists of the 50 observations.
d The statistic the owner would use is the mean of the 50 observations.
e The statistic would be used to estimate the parameter from which the owner can calculate total costs. We computed the sample mean to be 19.8 mpg.