

# 11.2 Practice WS

In Exercises 1 and 2, determine whether the data is collected from a population or a sample. Explain your reasoning.

- the number of popcorn kernels in 25 bags of popcorn
- the college degrees of every employee at the hospital

In Exercises 3 and 4, identify the population and sample. Describe the sample.

- In a university, a survey of 1641 students found that 479 of them do not know the name of their college's mascot.
- In the United States, a survey of 1000 households with at least one child found that 874 of them have at least two computers.

In Exercises 5 and 6, determine whether the numerical value is a parameter or a statistic. Explain your reasoning.

- On a high school football team, 2% of the players are vegetarians.
- The average amount of the surveyed utility bills is \$176.42.

7. You roll a six-sided die 5 times and get all ones. The probability of this happening is,  $\left(\frac{1}{6}\right)^5 \approx 0.0001286$ , so you suspect this die favors ones. The die maker claims the die does not favor ones. You simulate rolling the die 30 times by repeatedly drawing 100 samples of size 30. The histogram shows the results.

- What should you conclude when you roll the actual die 30 times and get 6 ones?
- What should you conclude when you roll the actual die 30 times and get 12 ones?

