

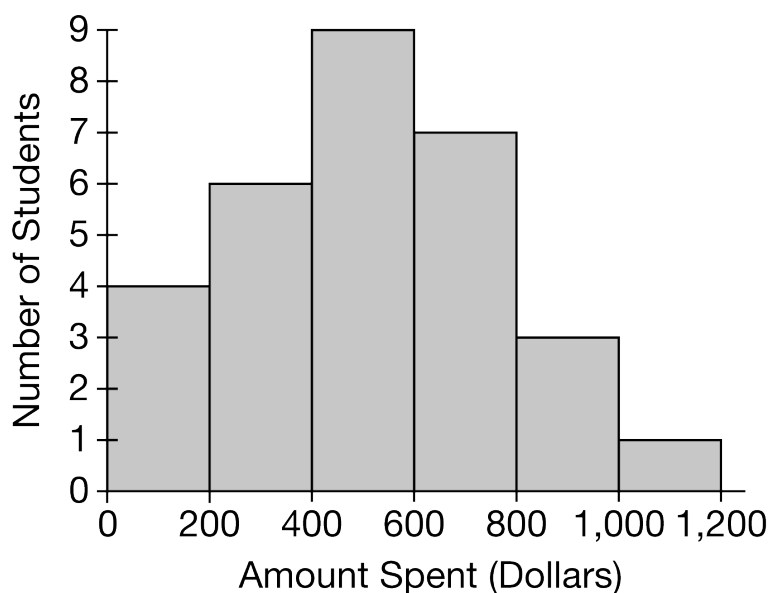
**Describing the Distribution of a Quantitative Variable Quiz**

1. Which of the following statements is true about a distribution that appears to have a gap when displayed as a histogram?
- (A) The distribution must have an outlier.
  - (B) The distribution has a region between two data values where no data were observed. ✓
  - (C) The distribution is approximately normal.
  - (D) The distribution cannot be symmetric.
  - (E) The distribution must be bimodal.

**Answer B**

Correct. A gap is a region of a distribution between two data values where there are no observed data.

2. The following histogram summarizes the amount spent on plane tickets to travel home, in dollars, for a group of 30 college students.



If the interval size is decreased from \$200 to \$100, which of the following must remain the same on the new histogram?

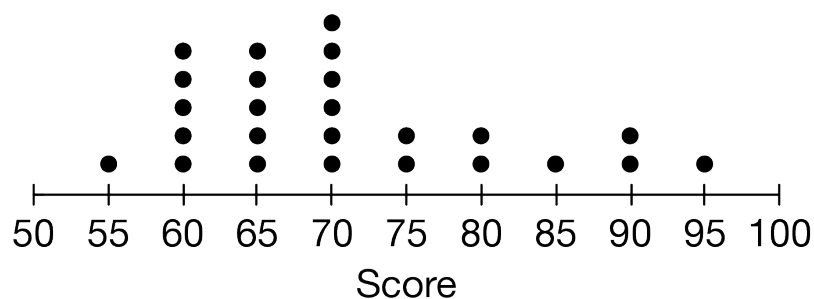
- (A) The heights of the bars
- (B) The widths of the bars
- (C) The number of bars
- (D) The sum of the frequencies ✓
- (E) The shape of the distribution

## Describing the Distribution of a Quantitative Variable Quiz

### Answer D

Correct. The sum of the frequencies does not change when the interval size of a histogram is changed. The same total number of students would be represented in the histogram regardless of interval size.

3. The following dotplot shows the scores of 25 people who played an online trivia game.



Which of the following statements is the best description of the distribution of scores?

- (A) The distribution is roughly symmetric.
- (B) The distribution is roughly uniform.
- (C) The distribution is skewed left.
- (D) The distribution is skewed right.
- (E) The distribution is bimodal.



### Answer D

Correct. The distribution of scores is skewed to the right because the right tail is longer than the left tail.