Lesson 11-2

Example 1 Construct a Histogram
FOOD The table shows the calories in different types of chocolate bars. Choose intervals and make a frequency table of the data shown. Then construct a histogram to represent the data.

155	266	161	190	199
44	110	55	168	114
238	214	278	125	70
258	140	181	183	62
90	260	210	177	283

The least value in the data is 44, and the greatest is 283. An interval size of 50 calories would yield the frequency table at the right.

To construct a histogram, follow these steps.

Step 1 Draw and label a horizontal and vertical axis. Include a title.

**Step 2** Show the intervals from the frequency table on the horizontal axis.

Calories	Tally	Frequency
0-50	|	1
51-100	||||	4
101-150	||||	4
151-200	⧄ |||	8
201-250	|||	3
251-300	⧄	5

Step 3 For each Calorie interval, draw a bar whose height is given by the frequencies.

Calories of Chocolate Bars
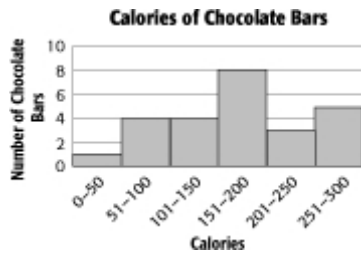
Example 2 Analyze and Interpret Data VOTERS How many people were younger than 33 when they first voted?

Five first time voters were 18-22 years old, ten were 23-27 years old, and fifteen were 28-32 years old when they first voted. Therefore, 5 + 10 + 15 or 30 people were younger than 33 when they voted for the first time.

How Old Were You When You Cast Your First Ballot?
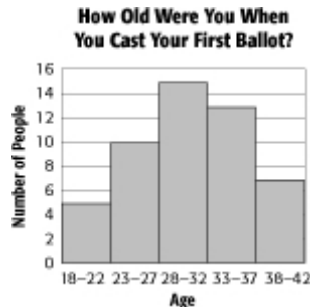
Example 3 Analyze and Interpret Data
VOTERS How many first time voters were 29 years old?

This cannot be determined from the data as presented in this graph. The histogram only tells us in which interval of ages the voters fall.