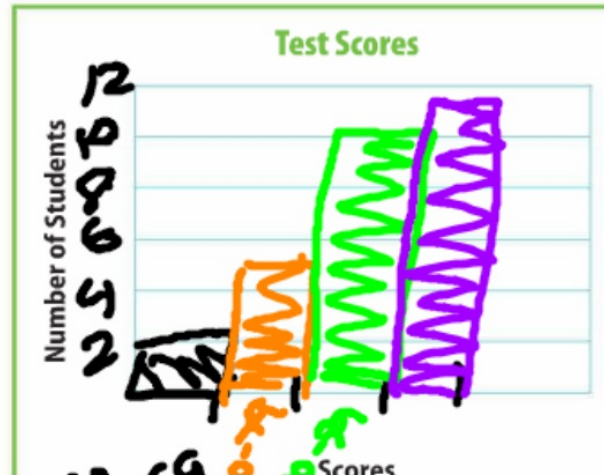


b. The table at the right shows a set of test scores. Choose intervals, make a frequency table, and construct a histogram to represent the data.

Test Scores						
72	97	80	86	92	98	88
76	79	82	91	83	90	76
81	94	96	92	72	83	85
65	91	92	68	86	89	97

Test Scores		
Score	Tally	Frequency
60-69		2
70-79		5
80-89		10
90-99	11



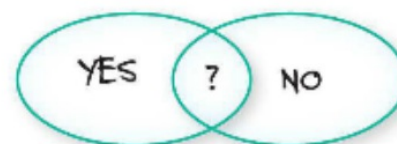
1. The frequency table below shows the number of books read on vacation by the students in Mrs. Angello's class. (Examples 1 and 2)
 - a. Draw a histogram to represent the data.
 - b. Describe the histogram. **Sample answer: The number of books read by 30 students were recorded. More students read between 3 and 5 books than any other range.**
 - c. How many students read six or more books? **14 students**



Number of Books Read		
Books	Tally	Frequency
0-2		6
3-5		10
6-8		7
9-11		3
12-14		4

Rate Yourself!

Are you ready to move on?
Shade the section that applies.



For more help, go online to access a Personal Tutor.



FOLDABLES Time to update your Foldable!

2.  **Building on the Essential Question** Why would you create a frequency table before creating a histogram?

Sample answer: A frequency table shows the frequency for each range. This information is used to create a histogram.



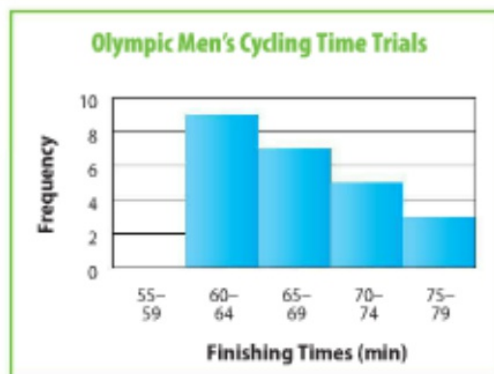
Independent Practice

Go online for Step-by-Step Solutions



For Exercises 1–4, use the histogram at the right. (Example 1)

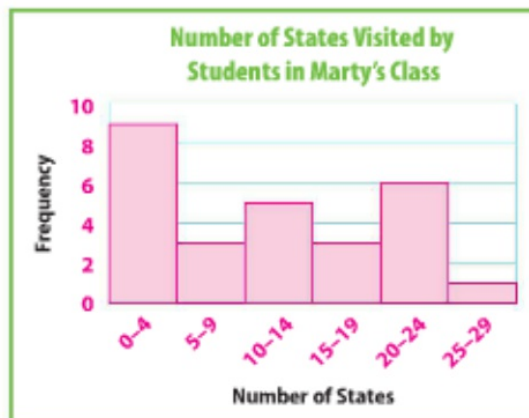
- Describe the histogram. **Sample answer: 24 cyclists participated. No one finished with a time lower than 60 minutes.**
- Which interval has 7 cyclists? **65–69 minutes**
- Which interval represents the greatest number of cyclists? **60–64 minutes**
- How many cyclists had a time less than 70 minutes? **16 cyclists**



Draw a histogram to represent the set of data. (Example 2)

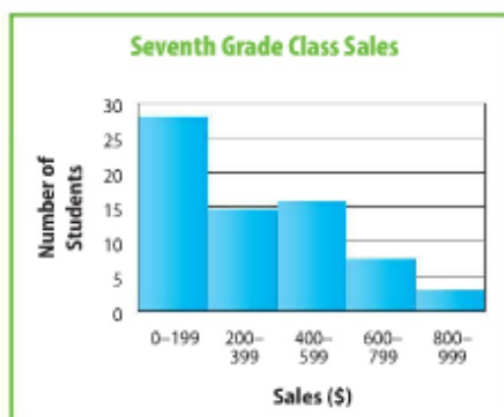
5.

Number of States Visited by Students in Marty's Class		
Number of States	Tally	Frequency
0–4		9
5–9		3
10–14		5
15–19		3
20–24		6
25–29		1





Use Math Tools For Exercises 6 and 7, refer to the histograms below.



6. About how many students from both grades earned \$600 or more?

24 students

7. Which grade had more students earn between \$400 and \$599?

6th grade

8. **CCSS Be Precise** The following data provides the number of Calories of various types of frozen bars. {25, 35, 200, 280, 80, 80, 90, 40, 45, 50, 50, 60, 90, 100, 120, 40, 45, 60, 70, 350}

- a. Draw a histogram to represent the data.
b. Find the measures of center.

mean: 95.5; median: 65; modes: 40, 45, 50, 60, 80, and 90

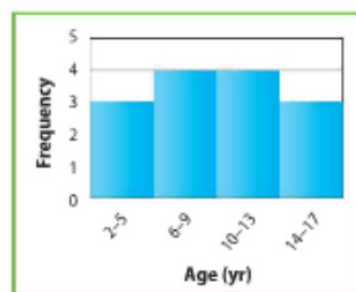
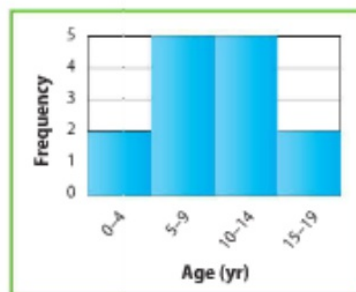
- c. Can you find the measures of center only from the histogram? Explain.

no; Sample answer: Individual data values are not shown in the histogram, so the measures of center cannot be found.



H.O.T. Problems Higher Order Thinking

9. **CCSS Persevere with Problems** Give a set of data that could be represented by both histograms below.



Sample answer: ages of students at summer camp: 3, 4, 5, 7, 7, 8, 8, 10, 10, 11, 13, 14, 15, 15

10. **CCSS Justify Conclusions** Identify the interval that is not equal to the other three. Explain your reasoning.

15-19

30-34

40-45

45-49

40-45; All the other intervals represent 5 whole numbers.

11. **CCSS Reason Inductively** The table shows a set of plant heights. Describe two different sets of intervals that can be used in representing the set in a histogram. Compare and contrast the two sets of intervals.

Sample answer: One set of intervals would be from 0 to 45, with

intervals of 5. Another set would be from 0 to 50 with intervals of 10.

If smaller intervals are used, less data values will be in each interval,

therefore the bars of the histogram will be shorter.

Plant Heights (in.)		
12	7	15
8	24	41
16	18	27
43	33	11
24	10	22