Name _____

Histograms

Essential Question How can you use a histogram to organize data?

🔑 Activity

The table below shows the ages of the members of a bicycle club. Make a **histogram** of the data. A histogram is a bar graph that shows how often data occur in intervals.

Math Idea
In a histogram, the bars touch because they represent continuous intervals.

Ages of Members in a Bicycle Club													
34	38	29	41	40	35	50	20	47	22	19	21	18	17
26	30	41	43	52	45	28	25	39	24	23	25	50	59

STEP 1 Make a frequency table with intervals of 10. Fill in the frequencies.

STEP 2 Choose an appropriate scale and interval for the vertical axis, and list the intervals on the horizontal axis. Label each axis.

STEP 3 Draw a bar for each interval. Give the histogram a title.

Ages	Tally	Frequency
10–19	|||	
20–29	⦀⦀ ⦀⦀	
30–39	⦀⦀	
40–49	⦀⦀|	
50–59	||||	
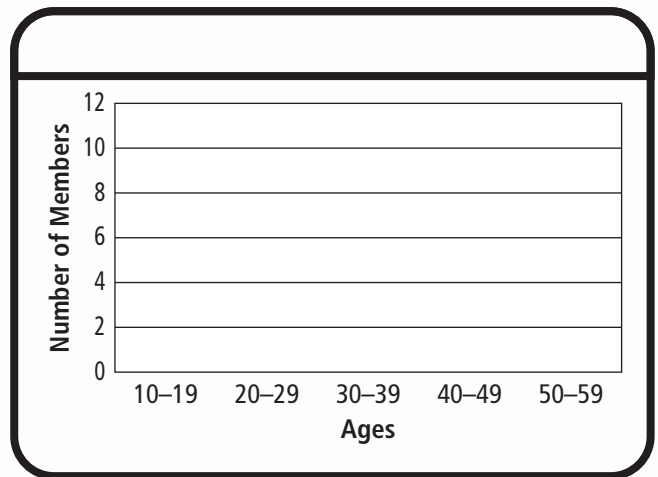
- **What if** you changed the histogram to show four age groups with 12-year intervals?

  How would the histogram change?

  _____

  _____

  _____

Math Talk **Explain** how a histogram and a bar graph with categories are different.

Share and Show

MATH BOARD

For 1–3, use the data below.

The number of vacation days that each employee of a
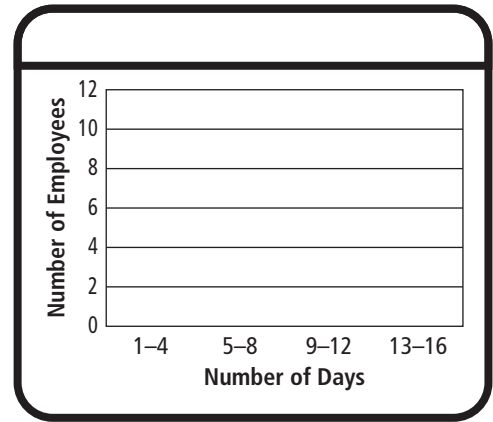company took last summer is given below.

2, 5, 6, 11, 3, 5, 7, 8, 10, 1, 4, 6, 10, 5, 12, 15, 6, 8, 7, 14

1. Start at 1 day and use 4 days for each interval. List the intervals.

_____

2. Complete the frequency table.

Number of Days	Tally	Frequency
1–4	‖‖	
5–8	‖‖‖ ‖‖‖	
9–12	‖‖	
13–16	‖	

3. Complete the histogram.

On Your Own

For 4–6, use the data below.

The number of minutes that each student in Mrs. Green's
class spent on homework last night is given below.

45, 30, 55, 35, 50, 48, 60, 38, 47, 56, 40, 39, 55, 65, 49, 34, 35

4. Start at 30 and use 10-minute intervals for the data. List the intervals.

_____

5. Make a frequency table of the data.

6. Make a histogram of the data.

Problem Solving REAL WORLD

7. The number of words per minute that one class of students
typed is given below.

30, 45, 28, 35, 48, 37, 41, 44, 34, 29, 25, 32, 40, 45, 39, 49

What are reasonable intervals for the data?

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