

2-2 Bar Graphs and Line Graphs - Practice and Problem Solving

3. GEOGRAPHY Make a bar graph of the data below. Then compare the amount of shoreline for Florida and Texas.

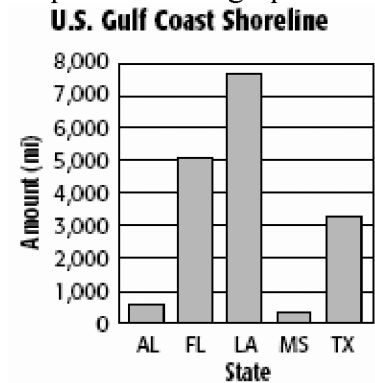
U.S. Gulf Coast Shoreline	
State	Amount (mi)
Alabama	607
Florida	5,095
Louisiana	7,721
Mississippi	359
Texas	3,359
Source: NOAA	

Step 1 Decide on a scale and interval. The data includes numbers from 359 to 7,721. So a scale from 0 to 8,000 and an interval of 1,000 is reasonable.

Step 2 Label the horizontal and vertical axes.

Step 3 Draw bars for each position. The height of each bar represents the number of miles of U.S. Gulf Coast Shoreline in each state.

Step 4 Label the graph with a title.



Florida has about 2,500 miles less shoreline as Louisiana.

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5. PETS Make a line graph of the data below. Describe the change in the percent of U.S. households owning cats from 1990–2006.

Percent of U.S. Households Owning Cats	
Year	Percent
1990	33
1994	30
1998	32
2002	34
2006	34

Step 1: Decide on a scale and interval. The data includes numbers from 30 to 34. So a scale from 0 to 40 and an interval of 4 is reasonable.

Step 2: Label the horizontal and vertical axes.

Step 3: Draw and connect the points for each year. Each point shows the percent of U.S. Households owning a cat for each year.

Step 4: Label the graph with a title.



Sample answer: The percent of U.S. households owning cats has remained somewhat steady with a drop in 1994.

WEATHER Refer to the table.

Average Temperatures (°F), Minneapolis, Minnesota			
Month	Temp.	Month	Temp.
Jan.	22	July	83
Feb.	29	Aug.	80
Mar.	41	Sept.	71
Apr.	57	Oct.	58
May	70	Nov.	40
June	79	Dec.	26
Source: <i>The World Almanac</i>			

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7. Choose an appropriate scale and interval for the data set.

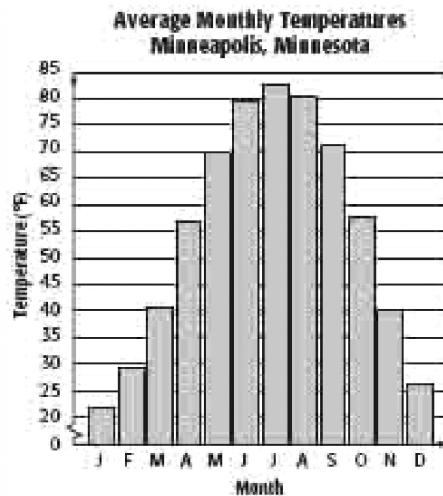
Sample answer: scale: 20–85; interval: 5

9. Make a graph of these data.

Step 1 Decide on a scale and an interval. The data includes numbers from 22 to 83. So a scale from 0 to 85 and an interval of 5 is reasonable.

Step 2 Label the horizontal and vertical axes.

Step 3 Draw bars for each month. The height of each bar represent the the average temperature of each month.



Step 4 Label the graph with a title.

11. COLLECT THE DATA Make an appropriate display showing the amount of time you spend doing a particular activity each day for one week. Then write at least two statements that analyze your data.

See student's work.

13. WRITING IN MATH Compare and contrast bar and line graphs.

Sample answer: Bar graphs and line graphs are ways to display data. Both display the categories on the horizontal axis and the scale on the vertical axis. Whereas a bar graph shows the frequency of each category, a line graph shows how data change over time.

Name: School: Grade: Class:

15. SURVEY The table shows the favorite colors of a group of students. Make a frequency table of the data. How many more students chose blue than yellow?

Favorite Color					
R	G	B	R	R	K
B	P	P	Y	R	B
P	R	Y	K	B	Y
B	B	P	B	P	R
R = red B = blue Y = yellow G = green P = purple K = pink					

Favorite Color		
Color	Tally	Frequency
red		6
green		1
blue		7
purple		5
yellow		3
pink		2

$7 - 3 = 4$; So 4 more students chose blue than yellow.

Find the area of each rectangle described.

17. length: 12 yards, width: 7 yards

$$\begin{aligned}A &= \ell w \\ &= 12 \times 7 \\ &= 84\end{aligned}$$

The area is 84 square feet.

PREREQUISITE SKILL Add.

19. $57 + 31$

$$57 + 31 = 88$$

21. $14 + 45 + 27$

$$14 + 45 + 27 = 59 + 27 = 86$$