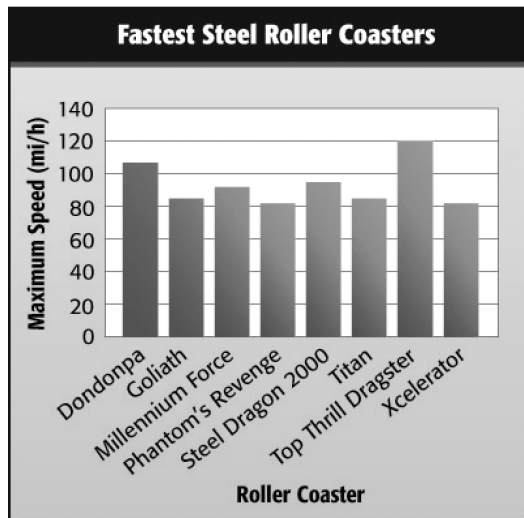


2-8 Selecting an Appropriate Display - Practice and Problem Solving

5. ROLLER COASTERS Which display makes it easier to compare the maximum speeds of Top Thrill Dragster and Millennium Force?



Maximum Speed of Fastest Steel Roller Coasters	
Stem	Leaf
8	2 2 5 5
9	2 5
10	7
11	
12	0 10 7 = 107

The bar graph allows you to easily compare the maximum speeds of two different roller coasters.

Select an appropriate type of display for data gathered about each situation.

7. the amount of sales a company has over the past 6 months

The data will compare sales over a period of time, so a line graph will be best.

9. the prices of five different brands of tennis shoes at an athletic store

The data will compare five different prices, or categories, so a bar graph will be best.

Select and make an appropriate type of display for each situation.

Name: School: Grade: Class:

11.

Latin American Country	Year of Independence
Argentina	1816
Bolivia	1825
Chile	1818
Columbia	1819
Ecuador	1822
Mexico	1821
Peru	1824
Venezuela	1821
Source: <i>The World Almanac</i>	

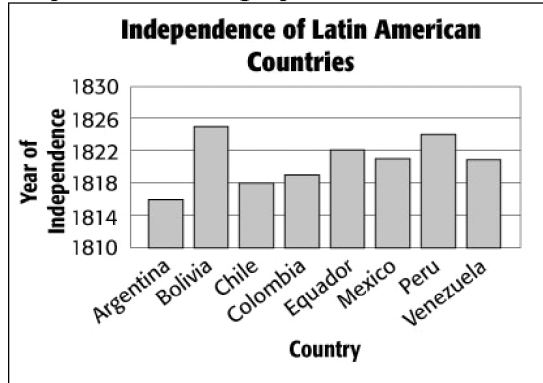
Sample answer: The data compare categories of data, so a bar graph will be appropriate.

Step 1: Decide on a scale and interval. The data includes years from 1816 to 1825. So a scale from 1810 to 1830 and an interval of 4 is reasonable.

Step 2: Label the horizontal and vertical axes.

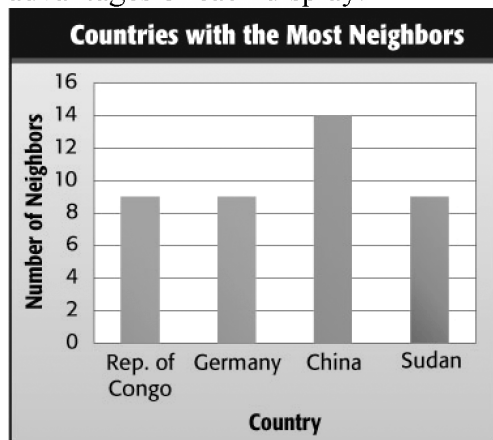
Step 3: Draw bars for each country. The height of each bar shows the year of independence.

Step 4: Label the graph with a title.



Name: School: Grade: Class:

13. GEOGRAPHY Display the data in the bar graph using another type of display. Compare the advantages of each display.

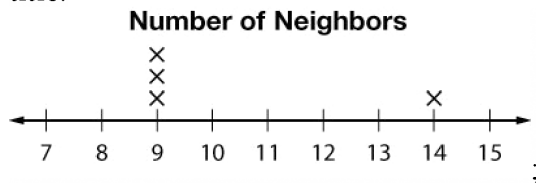


Source: Top 10 of Everything

Sample answer: Display the data in a line plot.

Step 1 Draw a number line. The data includes numbers from 9 to 14. So a scale from 7 to 15 is reasonable.

Step 2 Put an \times above the number that represents the number of neighbors of each country. Add a title.



The line plot allows you to easily see how many countries have a given number of neighbors. The bar graph however allows you to see the number of neighbors each given country has.

15. REASONING Determine whether the following statement is *true* or *false*. If true, explain your reasoning. If false, give a counterexample.

Any set of data can be displayed using a line graph.

False; counterexample: to compare the price of five different cell phones, a line graph would not be appropriate because these data do not show change over a period of time

17. WRITING IN MATH Write about a real-world situation in which you would have to choose an appropriate display for a set of data.

See students' work.

Name: School: Grade: Class:

19. The table shows the prices of the skateboards Jacy is considering buying.

Skateboards	
Brand	Price
Blackbird	\$55
Earth Bound	\$68
Element Skateboards	\$44
Venus Boards	\$61
ZoomFast	\$75

Which type of display would help Jacy best compare the prices of these skateboards?

F bar graph

G linegraph

H line plot

J stem-and-leaf plot

F; A bar graph will help Jacy compare the prices of the skateboards.

Find the mean for each set of data.

21. Length of television program (in minutes): 25, 20, 19, 22, 24, 28

$$\begin{aligned}\text{mean} &= \frac{25 + 20 + 19 + 22 + 24 + 28}{6} \\ &= \frac{138}{6} \text{ or } 23\end{aligned}$$

PREREQUISITE SKILL Refer to the table showing the time Mia spent studying.

Day	Hours
Monday	1
Tuesday	2
Wednesday	2
Thursday	1
Friday	4

Name: School: Grade: Class:

23. Make a line graph of the data.

Step 1 Decide on a scale and interval. The data includes numbers from 1 to 4. So a scale from 0 to 5 and an interval of 1 is reasonable.

Step 2 Label the horizontal and vertical axes.

Step 3 Draw and connect the points for each day. Each point shows the number of hours Mia studied each day.

Step 4 Label the graph with a title.

