

9.4

Choosing a Data Display

Key Idea

Data Display

Pictograph

What does it do?

shows data using pictures



Bar Graph

shows data in specific categories



Circle Graph

shows data as parts of a whole



Line Graph

shows how data change over time



Histogram

shows frequencies of data values in intervals of the same size



Stem-and-Leaf Plot

orders numerical data and shows how they are distributed



Box-and-Whisker Plot

shows the variability of a data set by using quartiles



Dot Plot

shows the number of times each value occurs in a data set



Scatter Plot

shows the relationship between two data sets by using ordered pairs in a coordinate plane



Example 1

Choose an appropriate data display for the situation. Explain your reasoning.

a. the number of students in a marching band each year

b. a comparison of people's shoe sizes and their heights

On Your Own

Choose an appropriate data display for the situation. Explain your reasoning.

1. the population of the United States divided into age groups

2. the percents of students in your school who play basketball, football, soccer, or lacrosse

Example 2



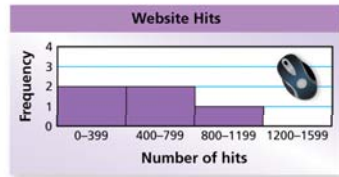
Month	Hits
August	250
September	320
October	485
November	650
December	925

You record the number of hits for your school's new website for 5 months. Tell whether the data display is appropriate for representing how the number of hits changed during the 5 months. Explain your reasoning.

a.



b.



Example 2 Cont.

c.



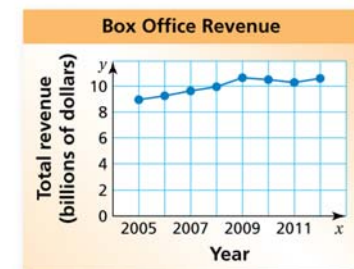
On Your Own

Tell whether the data display is appropriate for representing the data in Example 2. Explain your reasoning.

3. dot plot
4. circle graph
5. stem-and-leaf plot

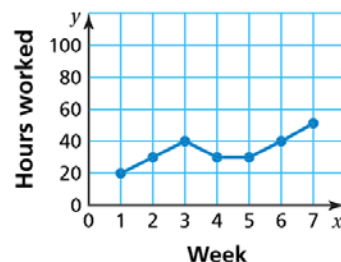
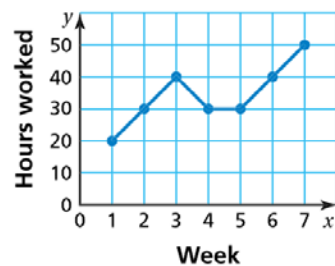
Example 3

Which line graph is misleading? Explain.

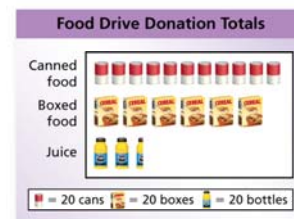


On Your Own

Which line graph is misleading? Explain.



Example 4

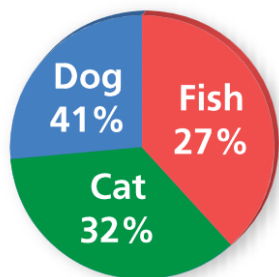


A volunteer concludes that the numbers of cans of food and boxes of food donated were about the same. Is this conclusion accurate? Explain.

On Your Own

Explain why the data display is misleading.

Favorite Pets



9.2

Choosing a Data Display

Key Idea

Data Display

Pictograph

Bar Graph

Circle Graph

Line Graph

Histogram

Stem-and-Leaf Plot

Box-and-Whisker Plot

Dot Plot

Scatter Plot

What does it do?

shows data using pictures



shows data in specific categories



shows data as parts of a whole



shows how data change over time



shows frequencies of data values in intervals of the same size



orders numerical data and shows how they are distributed



shows the variability of a data set by using quartiles



shows the number of times each value occurs in a data set



shows the relationship between two data sets by using ordered pairs in a coordinate plane



Example 1

Choose an appropriate data display for the situation. Explain your reasoning.

a. the number of students in a marching band each year

b. a comparison of people's shoe sizes and their heights

On Your Own


Choose an appropriate data display for the situation. Explain your reasoning.

1. the population of the United States divided into age groups

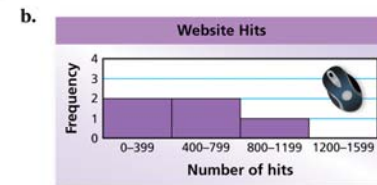
2. the percents of students in your school who play basketball, football, soccer, or lacrosse

Example 2

You record the number of hits for your school's new website for 5 months. Tell whether the data display is appropriate for representing how the number of hits changed during the 5 months. Explain your reasoning.



Month	Hits
August	250
September	320
October	485
November	650
December	925



Example 2 Cont.



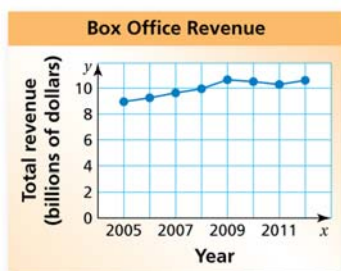
On Your Own

Tell whether the data display is appropriate for representing the data in Example 2. Explain your reasoning.

3. dot plot 4. circle graph 5. stem-and-leaf plot

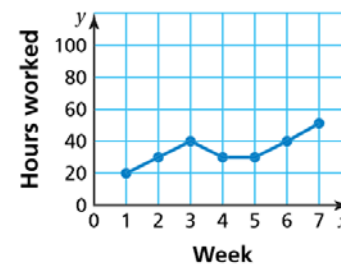
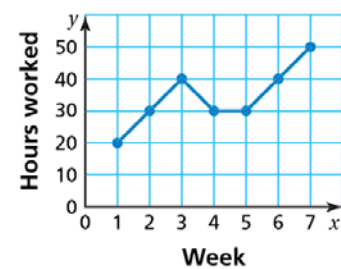
Example 3

Which line graph is misleading? Explain.

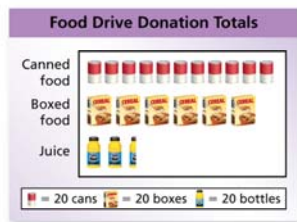


On Your Own

Which line graph is misleading? Explain.



Example 4



A volunteer concludes that the numbers of cans of food and boxes of food donated were about the same. Is this conclusion accurate? Explain.

On Your Own

Explain why the data display is misleading.

Favorite Pets

