

**GUIDED PRACTICE**

**Vocabulary** Apply the vocabulary from this lesson to answer each question.

1. Give an example of a graph that is not a *scatter plot*.
2. How is a scatter plot that shows *no correlation* different from a scatter plot that shows a *negative correlation*?
3. Does a *trend line* always pass through every point on a scatter plot? Explain.

SEE EXAMPLE 1  
 p. 263

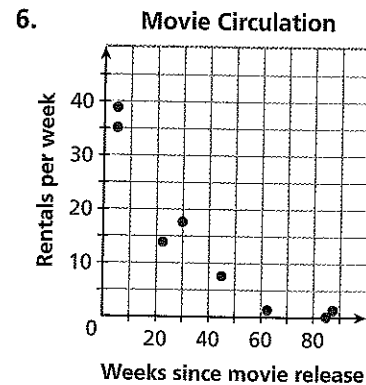
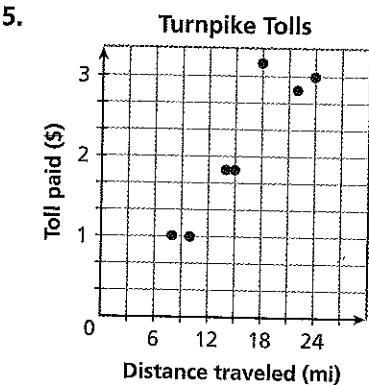
Graph a scatter plot using the given data.

4.

Garden Statue	Cupid	Gnome	Lion	Flamingo	Wishing well
Height (in.)	32	18	35	28	40
Price (\$)	50	25	80	15	75

SEE EXAMPLE 2  
 p. 264

Describe the correlation illustrated by each scatter plot.



SEE EXAMPLE 3  
 p. 264

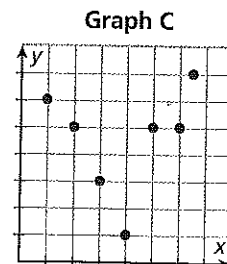
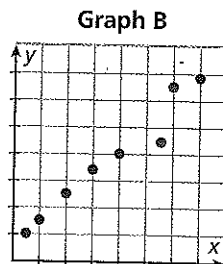
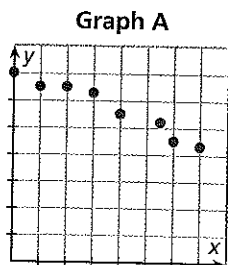
Identify the correlation you would expect to see between each pair of data sets. Explain.

7. the volume of water poured into a container and the amount of empty space left in the container
8. a person's shoe size and the length of the person's hair
9. the outside temperature and the number of people at the beach

SEE EXAMPLE 4  
 p. 265

Choose the scatter plot that best represents the described relationship. Explain.

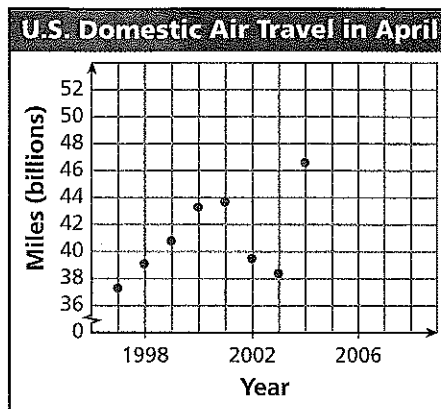
10. age of car and number of miles traveled
11. age of car and sales price of car
12. age of car and number of states traveled to



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SEE EXAMPLE 5  
p. 266

13. **Transportation** The scatter plot shows the total number of miles passengers flew on U.S. domestic flights in the month of April for the years 1997–2004. Based on this relationship, predict how many miles passengers will fly in April 2008.



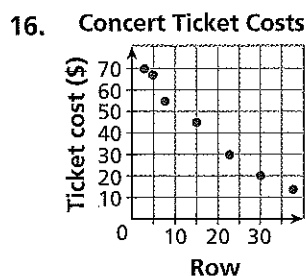
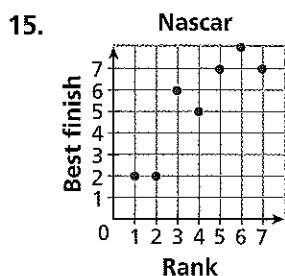
## PRACTICE AND PROBLEM SOLVING

Graph a scatter plot using the given data.

14.

Train Arrival Time	6:45 A.M.	7:30 A.M.	8:15 A.M.	9:45 A.M.	10:30 A.M.
Passengers	160	148	194	152	64

Describe the correlation illustrated by each scatter plot.

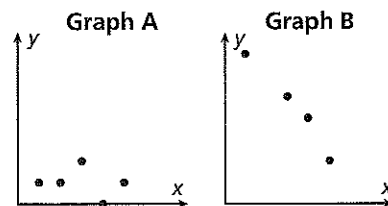


Identify the correlation you would expect to see between each pair of data sets. Explain.

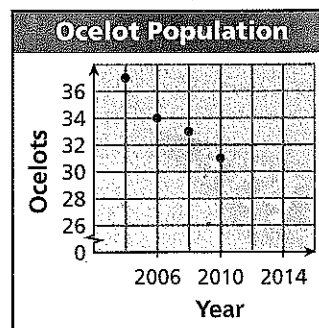
17. the speed of a runner and the distance she can cover in 10 minutes  
18. the year a car was made and the total mileage

Choose the scatter plot that best represents the described relationship. Explain.

19. the number of college classes taken and the number of roommates  
20. the number of college classes taken and the hours of free time.



21. **Ecology** The scatter plot shows a projection of the average ocelot population living in Laguna Atascosa National Wildlife Refuge near Brownsville, Texas. Based on this relationship, predict the number of ocelots living at the wildlife refuge in 2014 if nothing is done to help manage the ocelot population.



**LINK**  
**Ecology**

The ocelot population in Texas is dwindling due in part to their habitat being destroyed. The ocelot population at Laguna Atascosa National Wildlife Refuge is monitored by recovering 5–10 ocelots yearly by radio telemetry.