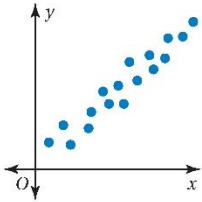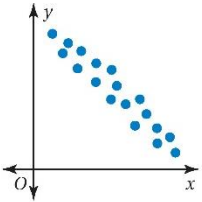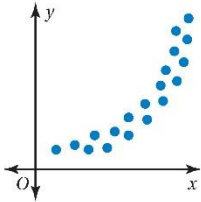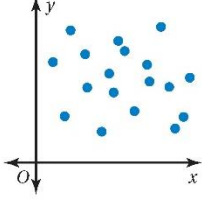Name: _____   Period: _____

9.1 Analyzing and Sketching Graphs

Key Terms and Concepts!!

Positive Linear Relationship	Negative Linear Relationship	Nonlinear Relationship	No Relationship
The points lie close to a line. As x increases, y increases.	The points lie close to a line. As x increases, y decreases.	The points lie in the shape of a curve.	The points show no pattern.

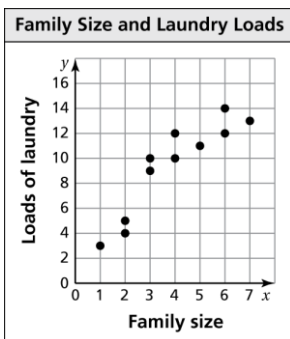Describe the relationship you would expect between the data. Explain.

1) age of the automobile and the odometer reading

   _____

   _____

2) time spent fishing and the amount of bait in the bucket
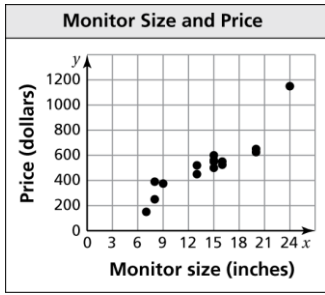
   _____

   _____

3) number of passengers in a car and the number of traffic lights on the route

   _____

   _____

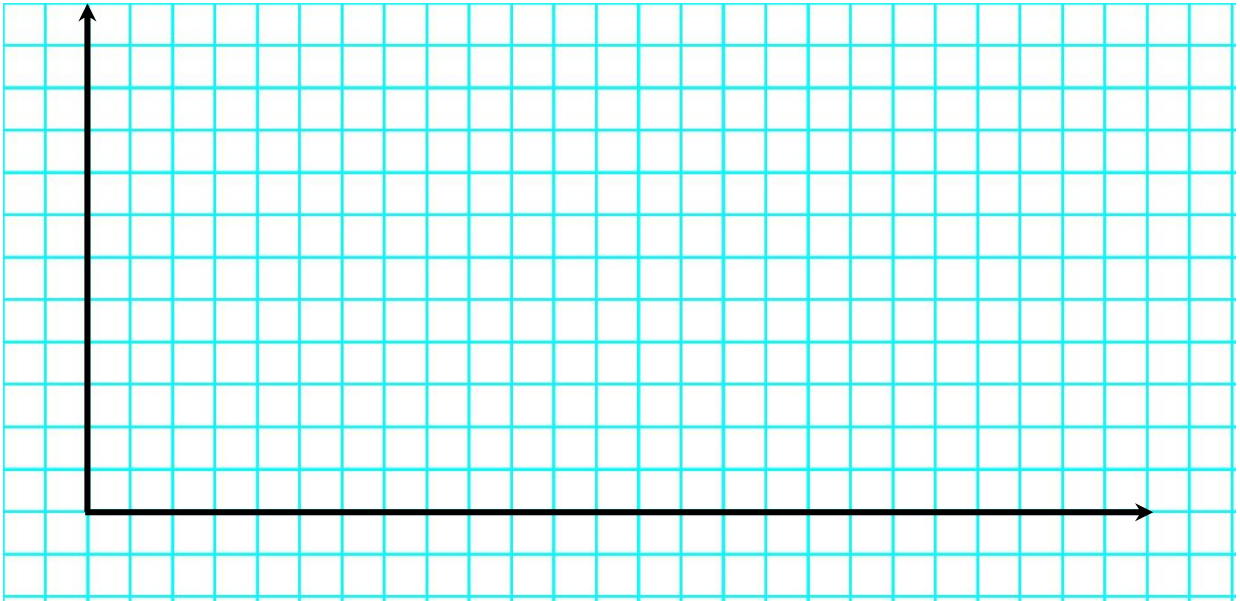Describe the relationship between the data. Identify any outliers, gaps, or clusters.

4)

   _____

   _____

   _____

   _____

5)

Monitor Size and Price

(scatter plot: y-axis "Price (dollars)" 0–1200, x-axis "Monitor size (inches)" 0 3 6 9 12 15 18 21 24)

_____

_____

_____

_____

6) The table shows the heights (in feet) of the waves at a beach and the numbers of surfers at the beach.

Wave Height	3	6	5	1
Number of Surfers	24	61	56	15

a) Write the ordered pairs from the table
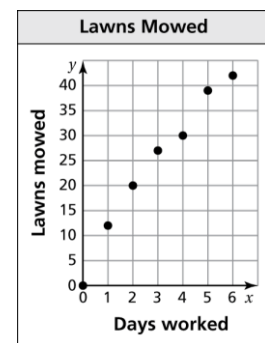
b) Plot these points on a coordinate plane.

c) Describe the relationship between the two data sets.

7) The scatter plot shows the numbers of lawns mowed by a local lawn care business during one week.

a) How many days does it take to mow 30 lawns?

b) About how many lawns can be mowed in 1 day?
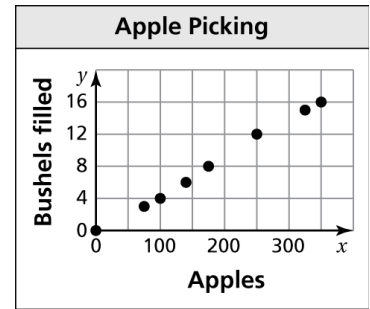
c) Describe the relationship shown by the data.

Lawns Mowed

(scatter plot: y-axis "Lawns mowed" 0–40, x-axis "Days worked" 0 1 2 3 4 5 6)

8) The scatter plot shows the numbers of bushels filled and the numbers of apples picked.

a) How many bushels are needed for 350 apples?

Apple Picking

b) About how many apples can be placed in 8 bushels?

c) Describe the relationship shown by the data.

9) The scatter plot shows the numbers of yard sales in your neighborhood each month for a year.

a) How many yard sales are during the month of February? June?

Yard Sales Each Month

b) During which month(s) are there no yard sales?

c) What type of relationship do the data show?

d) What type of climate might this neighborhood have?

e) Identify any outliers, gaps, or clusters and explain why they might exist.