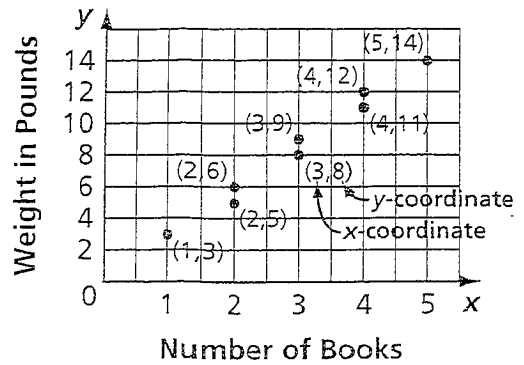


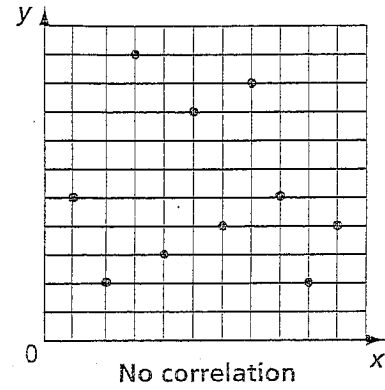
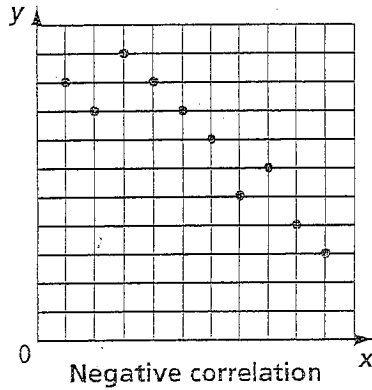
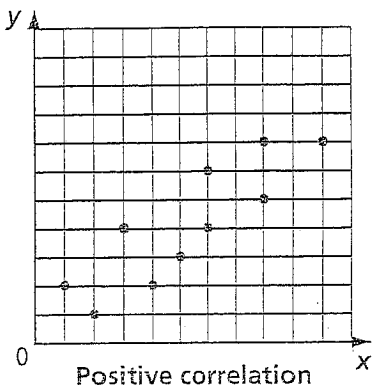
Two sets of related data can be graphed on a scatter plot. The chart below shows two sets of related data. Students were surveyed to find out the contents and weight of their bookbags.

Number of Books and Notebooks	2	3	2	1	4	5	4	3
Weight in Pounds	5	9	6	3	11	14	12	8



This data can be written as ordered pairs (x, y) :
 $(2, 5), (3, 9), (2, 6), (1, 3), (4, 11), (5, 14), (4, 12), (3, 8)$.

The weight in pounds (y-coordinate) tends to increase as the number of books and notebooks (x-coordinate) increases. This is a **positive correlation**. For other data, the y-coordinate may tend to decrease as the x-coordinate increases. This is a **negative correlation**. If no pattern exists between the coordinates, then there is **no correlation**.

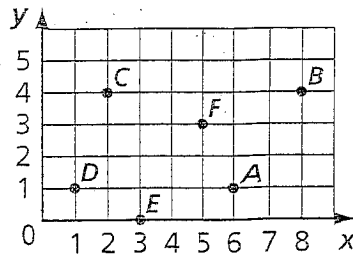


Use the scatter plot to answer the questions.

1. Write the ordered pair represented by each letter.

A _____ B _____ C _____

D _____ E _____ F _____



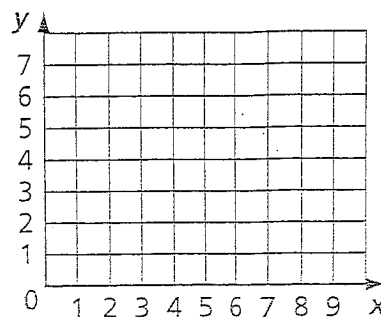
2. Plot the points on the scatter plot.

$G(5, 1)$ $H(0, 4)$ $I(3, 4)$

3. Draw a scatter plot for the ordered pairs below. Label each point with the correct letter.

$A(8, 4.5), B(4, 2), C(6, 4), D(3, 1.5), E(7, 4)$

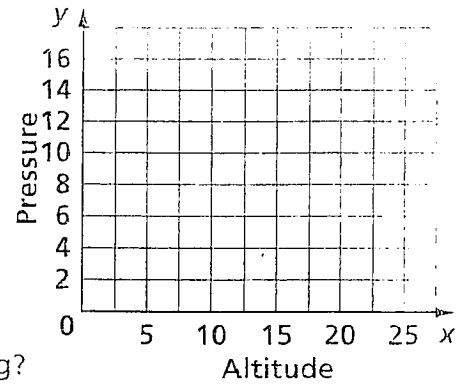
$F(2, 1), G(4, 3), H(5, 2.5), I(6, 3)$



4. Describe the correlation.

5. Use the data in the table to draw a scatter plot.

Altitude (in 1,000's of feet)	0	5	10	15	20	25
Pressure (in pounds per sq in.)	14.7	12.3	10.2	8.4	6.8	5.4



6. Describe the correlation.

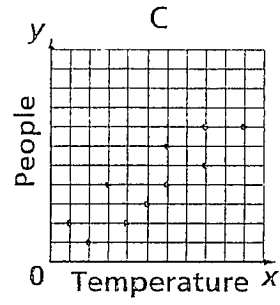
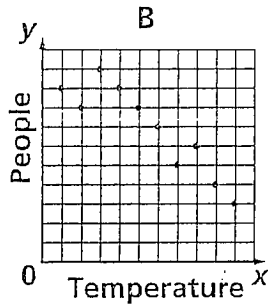
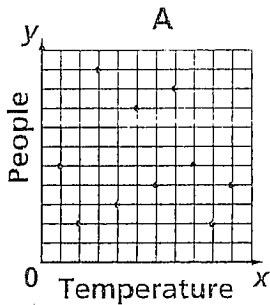
7. What correlation would you expect for each of the following?

a. scatter plot showing number of children in a family and number of windows in a kitchen

b. scatter plot of number of hours per day you are awake and the hours you are asleep

Problem Solving
Reasoning

Solve.



8. Which graph do you think represents daily temperature and number of people at the beach? Explain.

9. Which graph do you think represents daily temperature and people at the shopping mall? Explain.

Test Prep ★ Mixed Review

10. The data show the number of cousins that 13 students have. What is the median value?

Cousins		Key: 1 2 represents 12 cousins
0	5 5 6 7	
1	2 3 7 8	
2	3 5 6 8 9	

- A 5 B 7 C 16.2 D 17

11. The ages of the eleven players on a parent-student soccer team are: 12, 50, 13, 48, 14, 41, 14, 52, 15, 56, 15. Which of these values does 50 represent?

- F range H upper quartile
G mean J median