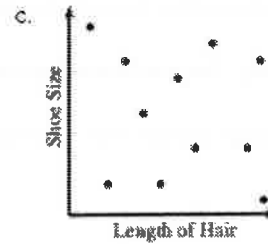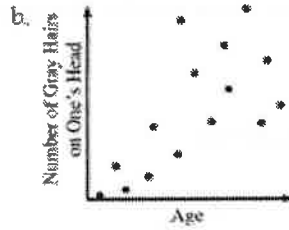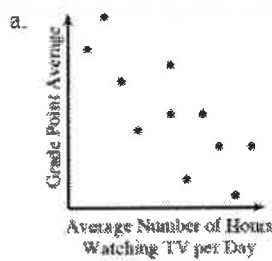**7-29.**

For each scatterplot below, determine if there is an association between the points. Label each graph as showing a positive association, negative association, or no association. If there is an association, write a sentence describing it. Homework Help ✎

a.

Grade Point Average

Average Number of Hours Watching TV per Day

b.

Number of Gray Hairs on One's Head

Age

c.

Shoe Size

Length of Hair

CL 7-118.

For the following examples, tell whether there is positive association, negative association, or no association.

a. The number of inches of rain per hour and the height of water in a reservoir.

b. The amount of food a person eats and how many pets he or she has.

c. The height of a tree and the amount of nutrients it gets.

d. The number of hours spent hiking in the mountains and the amount of water left in your water bottle.

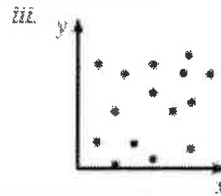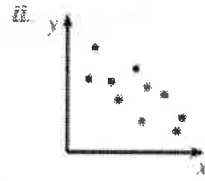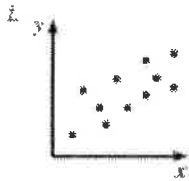**CL 7-116.**

Graph the following data on a scatterplot.

a. Does the graph show either a positive or a negative association?

b. Does there appear to be a connection between height and spelling ability?

c. Does greater height cause better spelling ability?

d. What other factors could create the association you see?

Height (Inches)	Test Scores (Percent)
24	3
56	86
72	98
49	50
18	0
36	12
70	90
66	81
61	75
34	25
59	80
57	77
64	88

7-16.

Sometimes what you know about relationships can help you predict what data will look like when it is graphed. For each situation below:

- Look at the scatterplots and use your experience to decide which statement fits each scatterplot.

- Decide if there is a relationship between the data. That is, as one quantity changes, does the other change in a predictable way?

- If there is a relationship, describe it in a sentence.

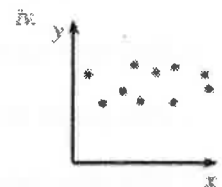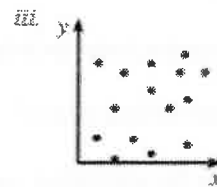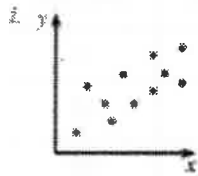- If there is no relationship, explain why you think there is not one.

i.   ii.   iii.   iv.

a. How fast a dog can run and the length of the dog's fur.

b. A person's age and their body temperature.

c. The child's age and the size of his or her feet.

d. Outdoor temperature and the percentage of people wearing long sleeve shirts.

7-18.

Look at the scatterplots and use your experience to decide which statement fits each scatterplot. If there is a relationship, describe it in a sentence. Homework Help ↘.

i.   ii.   iii.   iv.

a. A city's average daytime temperature in January and its latitude. Recall that the equator is at $0°$ latitude and the poles are at $90°$ latitude.

b. Weight of a car and its speed in a traffic jam on the freeway.

c. Number of pets a student has at home and his or her grades.

d. Cost of a person's home and the value of his or her car.