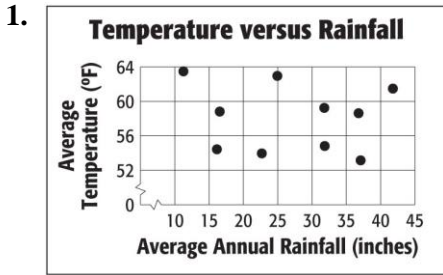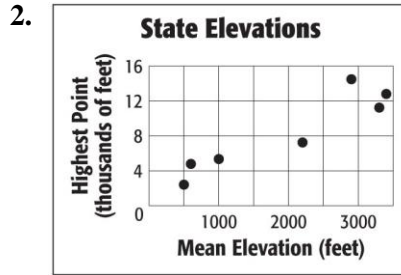# 4-4 Practice
Scatter Plots and Lines of Fit

Determine whether each graph shows a *positive correlation*, a *negative correlation*, or *no correlation*. If there is a positive or negative correlation, describe its meaning in the situation.

1.

Temperature versus Rainfall

Source: National Oceanic and Atmospheric Administration

2.
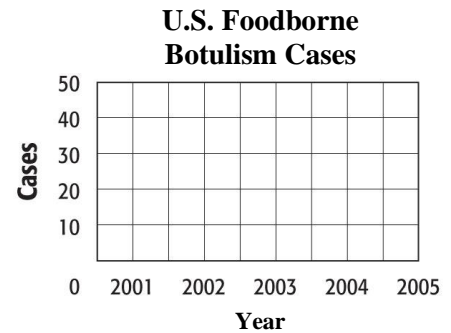

State Elevations

Source: U.S. Geological Survey

3. DISEASE The table shows the number of cases of Foodborne Botulism in the United States for the years 2001 to 2005.

   a. Draw a scatter plot and determine what relationship, if any, exists in the data.

   b. Draw a line of fit for the scatter plot.

   c. Write the slope-intercept form of an equation for the line of fit.

U.S. Foodborne Botulism Cases					
Year	2001	2002	2003	2004	2005
Cases	39	28	20	16	18

Source: Centers for Disease Control

U.S. Foodborne Botulism Cases

4. ZOOS The table shows the average and maximum longevity of various animals in captivity.

   a. Draw a scatter plot and determine what relationship, if any, exists in the data.

   b. Draw a line of fit for the scatter plot.

   c. Write the slope-intercept form of an equation for the line of fit.

   d. Predict the maximum longevity for an animal with an average longevity of 33 years.

Longevity (years)							
Avg.	12	25	15	8	35	40	41	20
Max.	47	50	40	20	70	77	61	54

Animal Longevity (Years)