$\qquad$
$\qquad$ PERIOD $\qquad$

## T4-4 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 meaningin the situation.


Source: National Oceanic and Atmospheric Administration
2.


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.
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.

| 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


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

Source: Walker's Mammals of the World
Animal Longevity (Years)


