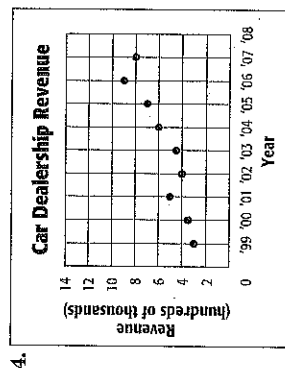
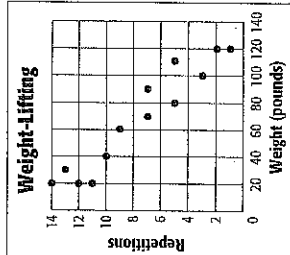
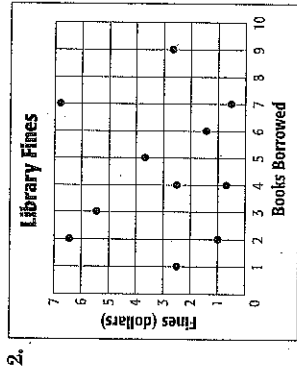
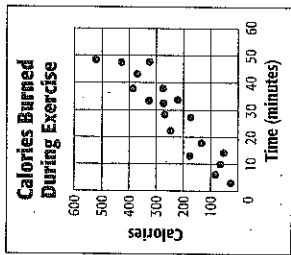


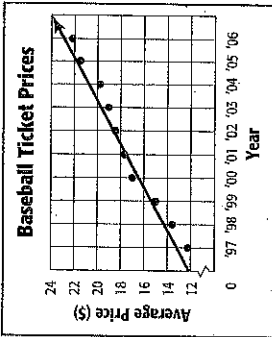
4.5 Skills Practice

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.



5. **BASEBALL** The scatter plot shows the average price of a major-league baseball ticket from 1997 to 2006.



- Determine what relationship, if any, exists in the data. Explain.
- Use the points (1998, 13.60) and (2003, 19.00) to write the slope-intercept form of an equation for the line of fit shown in the scatter plot.
- Predict the price of a ticket in 2009.

Source: Team Marketing Report, Chicago

NAME _____

DATE _____

PERIOD _____

4.6 Skills Practice

Regression and Median-Fit Lines

Write an equation of the regression line for the data in each table below. Then find the correlation coefficient.

1. **SOCCER** The table shows the number of goals a soccer team scored each season since 2002.

Year	Goals Scored
2002	42
2003	48
2004	46
2005	50
2006	52
2007	48

2. **PHYSICAL FITNESS** The table shows the percentage of seventh grade students in public school who met all six of California's physical fitness standards each year since 2002.

Year	Percentage
2002	24.0%
2003	36.4%
2004	38.0%
2005	40.8%
2006	37.5%

Source: California Department of Education

3. **TAXES** The table shows the estimated sales tax revenues, in billions of dollars, for Massachusetts each year since 2004.

Year	Sales Revenue
2004	3.75
2005	3.89
2006	4.00
2007	4.17
2008	4.47

Source: Beacon Hill Institute

4. **PURCHASING** The SureSave supermarket chain closely monitors how many diapers are sold each year so that they can reasonably predict how many diapers will be sold in the following year.

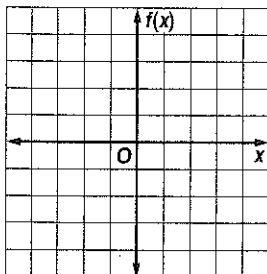
Year	Diapers Sold
2003	60,200
2004	65,000
2005	66,300
2006	65,200
2007	70,600

- Find an equation for the median-fit line.
- How many diapers should SureSave anticipate selling in 2008?

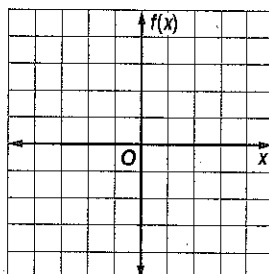
4-7**Skills Practice****Special Functions**

Graph each function. State the domain and range.

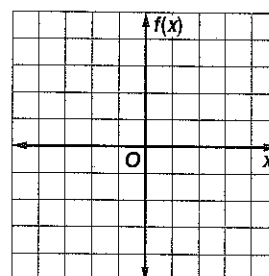
1. $f(x) = [x - 2]$



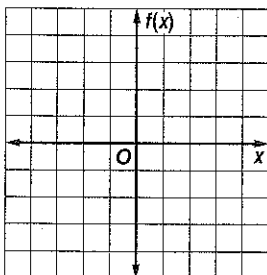
2. $f(x) = 3[x]$



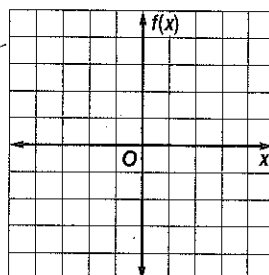
3. $f(x) = [2x]$



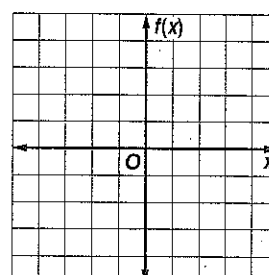
4. $f(x) = |x| - 3$



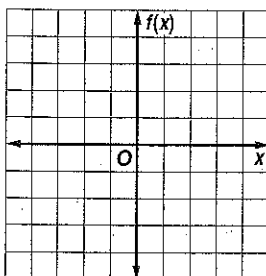
5. $f(x) = |2x|$



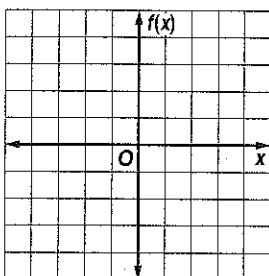
6. $f(x) = |2x + 5|$



7. $f(x) = \begin{cases} 2x & \text{if } x \leq 1 \\ -x + 3 & \text{if } x > 1 \end{cases}$



8. $f(x) = \begin{cases} x + 4 & \text{if } x \leq 1 \\ 0.25x + 1 & \text{if } x > 1 \end{cases}$



9. $f(x) = \begin{cases} x + 2 & \text{if } x < 0 \\ -0.5x + 1 & \text{if } x \geq 0 \end{cases}$

