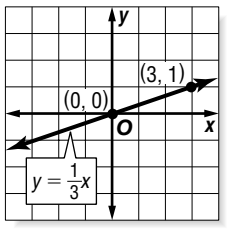
NAME _____ DATE _____ PERIOD _____

5-2 Skills Practice

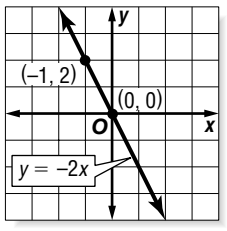
Slope and Direct Variation

Name the constant of variation for each equation. Then determine the slope of the line that passes through each pair of points.

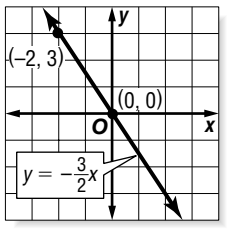
1.



2.

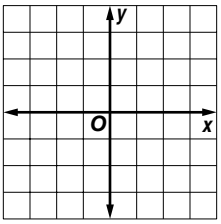


3.

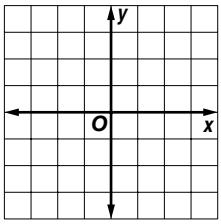


Graph each equation.

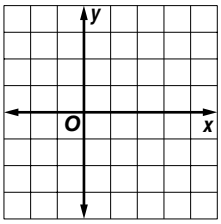
4. $y = 3x$



5. $y = -\frac{3}{4}x$



6. $y = \frac{2}{5}x$



Write a direct variation equation that relates x and y. Assume that y varies directly as x. Then solve.

7. If $y = -8$ when $x = -2$, find x when $y = 32$.

8. If $y = 45$ when $x = 15$, find x when $y = 15$.

9. If $y = -4$ when $x = 2$, find y when $x = -6$.

10. If $y = -9$ when $x = 3$, find y when $x = -5$.

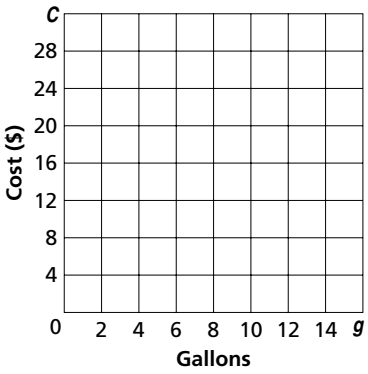
11. If $y = 4$ when $x = 16$, find y when $x = 6$.

12. If $y = 12$ when $x = 18$, find x when $y = -16$.

Write a direct variation equation that relates the variables. Then graph the equation.

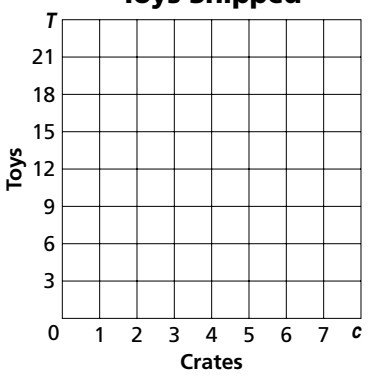
13. TRAVEL The total cost C of gasoline is \$1.80 times the number of gallons g.

Gasoline Cost



14. SHIPPING The number of delivered toys T is 3 times the total number of crates c.

Toys Shipped



Lesson 5-2

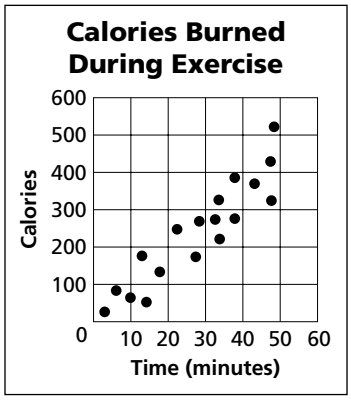
NAME _____ DATE _____ PERIOD _____

5-7 Skills Practice

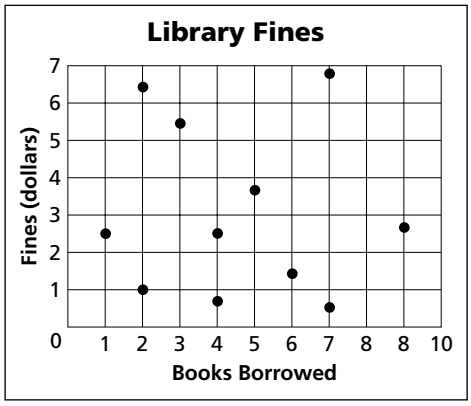
Statistics: Scatter Plots and Lines of Fit

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.

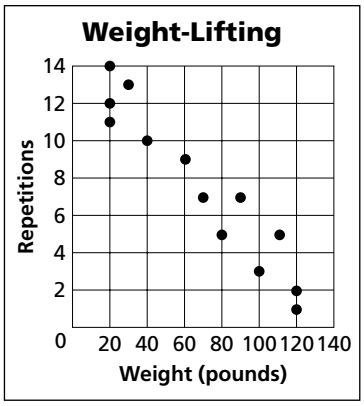
1.



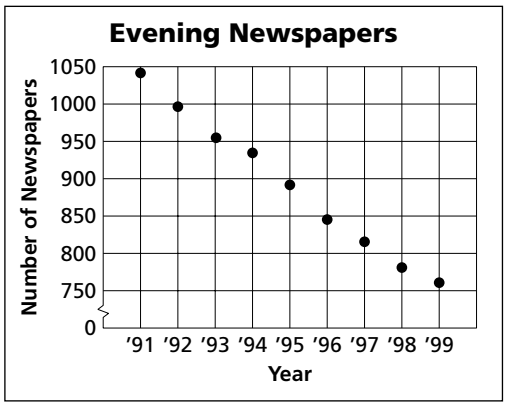
2.



3.

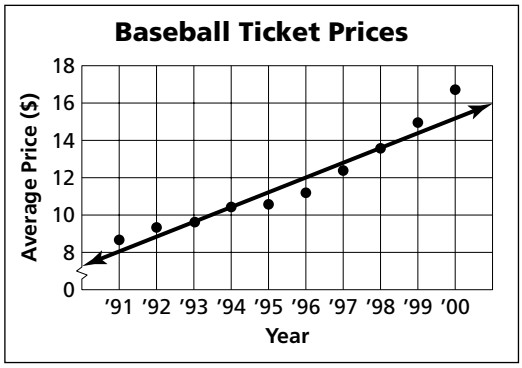


4.



Source: *Editor & Publisher*

BASEBALL For Exercises 5–7, use the scatter plot that shows the average price of a major-league baseball ticket from 1991 to 2000.



Source: Team Marketing Report, Chicago

5. Determine what relationship, if any, exists in the data. Explain.

6. Use the points (1993, 9.60) and (1998, 13.60) to write the slope-intercept form of an equation for the line of fit shown in the scatter plot.

7. Predict the price of a ticket in 2004.

Lesson 5-7