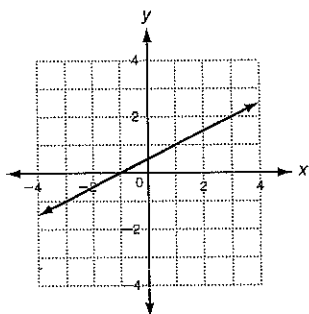


Practice Tests

Name _____ Date _____ Class _____

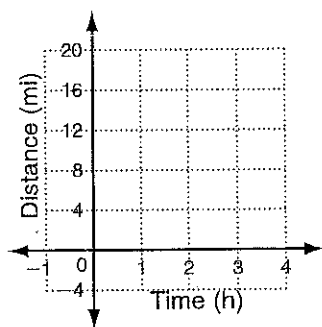
CHAPTER 5 Chapter Test Form A

1. Does this graph represent a linear function? Explain.



2. A jogger runs 4 mi/h. The function $f(x) = 4x$ gives the distance the jogger travels in x hours.

Graph this function.



Give its domain and range.

domain: _____

range: _____

3. Find the x - and y -intercepts of $3x - y = 6$.

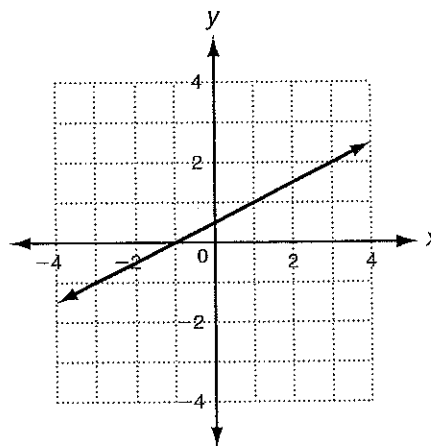
x -intercept: _____

y -intercept: _____

4. This table shows the number of people at a festival at certain times during the day. During which time interval did the number of people increase at the greatest rate? What was the rate of change for that interval?

Hour (PM)	1	2	4	7	8
Number of People	12	20	34	40	45

5. Tell whether the slope of this line is positive, negative, zero, or undefined.



6. Find the slope of the line that contains the points $(4, 5)$ and $(7, 11)$.

CHAPTER
5

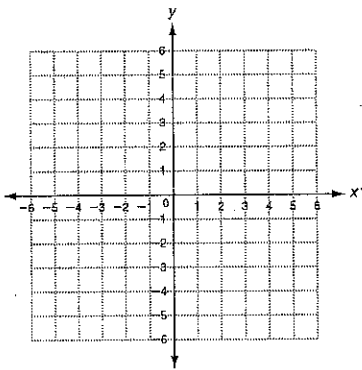
Chapter Test
Form A continued

7. Tell whether this relationship is a direct variation. Explain.

x	6	-1	-2
y	-18	3	6

8. Write an equation in slope-intercept form that describes the line with a slope of 4 and y-intercept of 1.

9. Graph the line with a slope of $-\frac{1}{2}$ and y-intercept of 4.



10. Write an equation in point-slope form that describes the line with a slope of -3 that contains the point (1, 2).

11. Identify which lines are parallel.

I $y = 2$

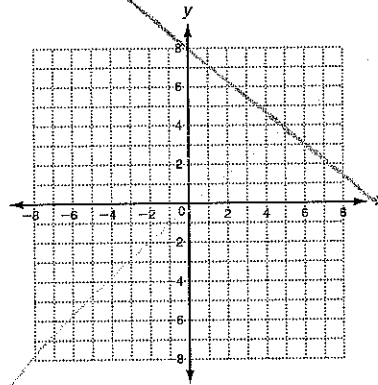
II $y = x + 2$

III $y = 2x - 1$

IV $y = 2x + 2$

12. Write an equation in slope-intercept form for the line that passes through (0, -1) and is perpendicular to the line described by $y = \frac{1}{8}x + 4$.

13. Graph $f(x) = 6x$ and $g(x) = -6x$. Then describe the transformation from the graph of $f(x)$ to the graph of $g(x)$.

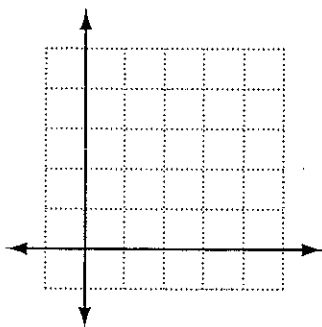


CHAPTER 5 **Chapter Test**
Form C

1. Do these ordered pairs satisfy a linear function? Explain.
 $\{(0, 1), (1, 2), (2, 4), (3, 8), (4, 16)\}$

2. An apartment in Valparaiso, Indiana, rents for \$600 per month with a \$1000 deposit. The rental is month-to-month, but you must stay at least one month. The function $f(x) = 600x + 1000$ gives the cost of renting for x months.

Graph this function.



Give its domain and range.

domain: _____

range: _____

3. A machine makes 640 fl oz of yogurt. Each serving is 8 fl oz. The amount left after x servings is described by the function $f(x) = 640 - 8x$. What is the value and meaning of each intercept?

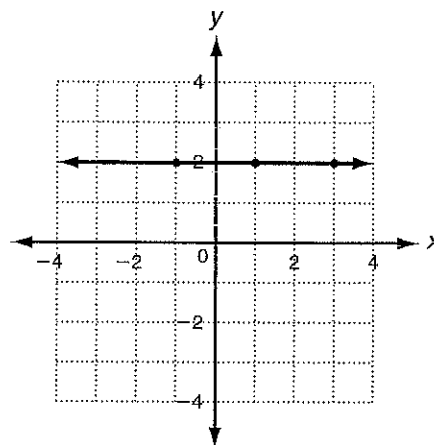
x-intercept: _____

y-intercept: _____

4. This table shows the percent interest on a new 30-year homeowner's loan for different months after August 16, 2004. During which time interval did the percent interest increase at the greatest rate. What was the rate of change for that interval?

Months after 8/16/2004	0	6	9	11	12
Interest (%)	5.46	5.14	5.30	5.27	5.37

5. Find the slope of this line.



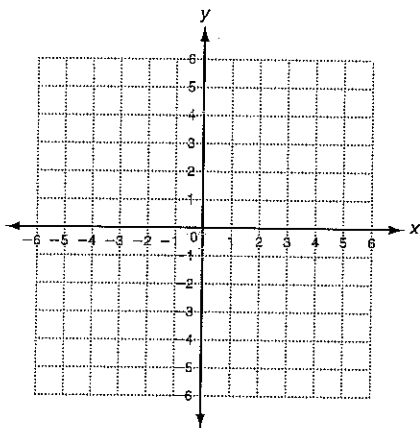
6. Find the value of y so that the points $(-5, 10)$ and $(3, y)$ lie on a line with slope $-\frac{3}{8}$.

CHAPTER 5 **Chapter Test**
Form C continued

7. The value of y varies directly with x , and $y = 5.4$ when $x = 9$. Find y when $x = -10$.

8. Write an equation in slope-intercept form that describes the line with a slope of 3 and containing the point $(5, -1)$.

9. Write the equation $x - 3y = 9$ in slope-intercept form. Then graph the line described by the equation.



10. Write an equation in point-slope form that describes the line through the points $(-2, 6)$ and $(3, 1)$.

11. Identify which lines are parallel.

I $3y = 2x$

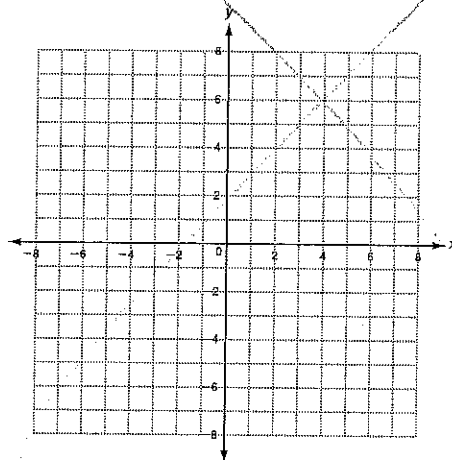
II $y = -\frac{2}{3}x + 7$

III $y + 7 = -\frac{3}{2}(x - 8)$

IV $3x + 2y = 7$

12. Write an equation in slope-intercept form for the line that passes through $(5, -4)$ and is perpendicular to the line described by $2x - 10y = 0$.

13. Graph $f(x) = -2x + 4$ and $g(x) = -\frac{1}{2}x - 4$. Then describe the transformations from the graph of $f(x)$ to the graph of $g(x)$.



Answer Key continued

- 7. B
- 8. H
- 9. D
- 10. H
- 11. C
- 12. G
- 13. A

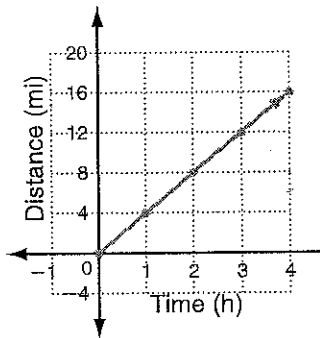
Chapter Test Form C

- 1. C
- 2. J
- 3. B
- 4. J
- 5. D
- 6. H
- 7. B
- 8. J
- 9. C
- 10. J
- 11. C
- 12. F
- 13. B

Chapter Test Form A

1. Yes; each domain value is paired with exactly one range value and the graph forms a line.

2.



domain: $x \geq 0$; range: $y \geq 0$

3. 2; -6

4. 1 PM to 2 PM; 8 people per hour

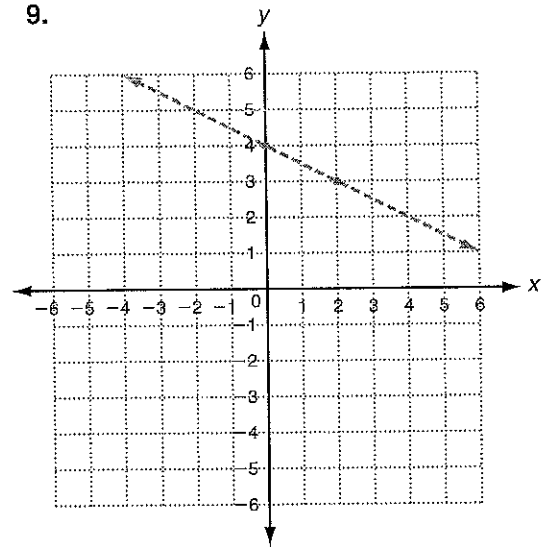
5. positive

6. 2

7. Yes; $\frac{y}{x}$ is the same (-3) for each ordered pair.

8. $y = 4x + 1$

9.

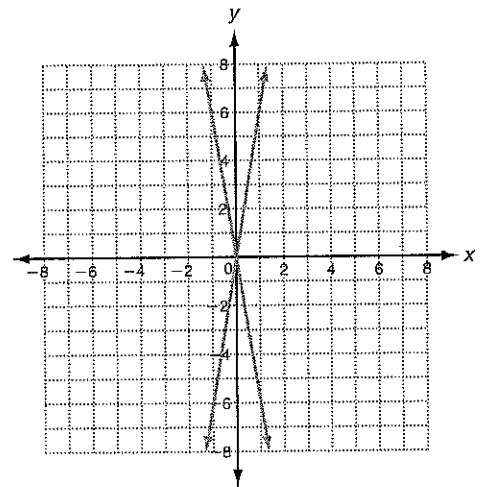


10. $y - 2 = -3(x - 1)$

11. III and IV

12. $y = -8x - 1$

13.

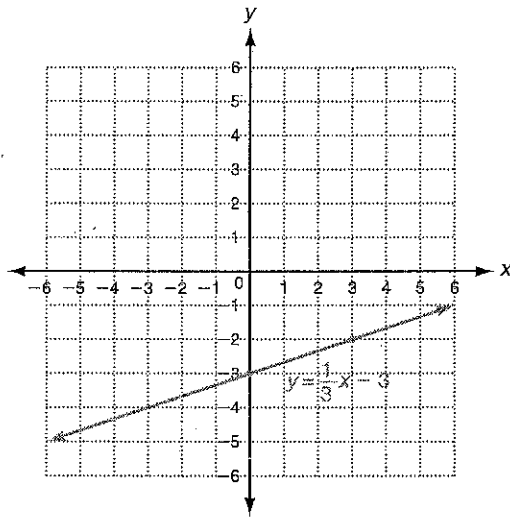


A reflection across the y - or x -axis.

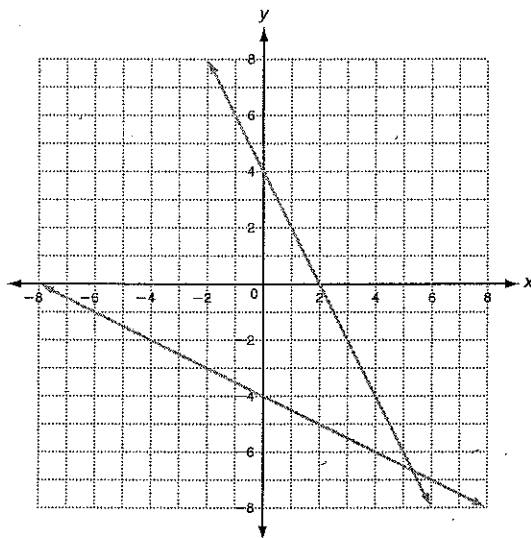
Answer Key continued

Chapter Test Form C

- 6. 7
- 7. -6
- 8. $y = 3x - 16$
- 9. $y = \frac{1}{3}x - 3$

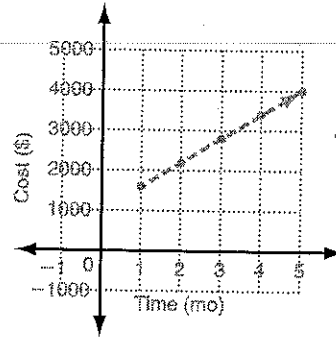


- 10. $y - 6 = -1(x + 2)$ or $y - 1 = -1(x - 3)$
- 11. III and IV
- 12. $y = -5x + 21$
- 13. A rotation about $(0, 4)$ (less steep), and a translation 8 units down.



- 1. No; a constant change of $+1$ in x corresponds to different changes in y .

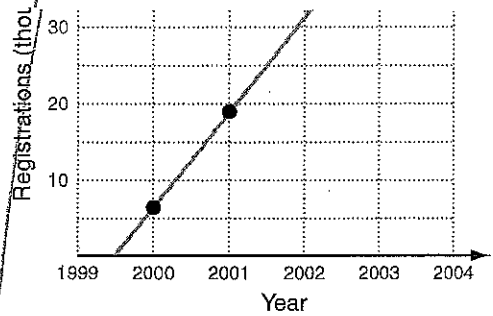
2.



domain: $\{1, 2, 3, 4, 5, \dots\}$;
range: $\{1600, 2200, 2800, 3400, \dots\}$

- 3. x-intercept: 80; after 80 servings there is no yogurt left.
y-intercept: 640; there are 640 fl oz of yogurt when there are no servings.
- 4. month 11 to 12; 0.1 percent per month
- 5. 0

Holt Algebra 1



this line captures 3 of the 4 points

- 8. $y - 6.5 = 12.3(x - 2000)$
- 9. 92.6 thousand