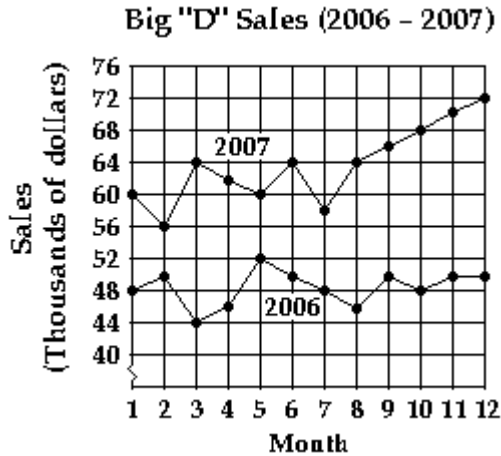


SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

The graph shows sales in thousands of dollars for 1989 and 1990. Use it to answer the question.



- 1) What month in 2007 had the lowest sales? 1) _____
- 2) Estimate the sales in June 2006. 2) _____
- 3) If the ordered pair (x, y) represents a point on the graph, what does x represent? What does y represent? 3) _____

Name the quadrant, if any, in which the point is located.

- 4) $(-19, -13)$ 4) _____

Complete the table for the equation.

- 5) $-3x + 2y = 8$ 5) _____

x	y
4	
2	
1	

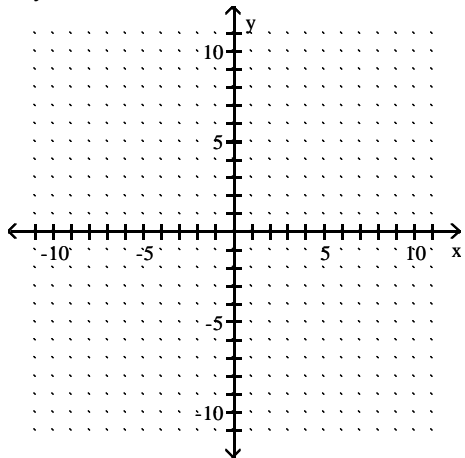
- 6) $y = -4x - 28$ 6) _____

x	y
-9	
0	
-32	

Find the x- and y-intercepts. Then graph the equation.

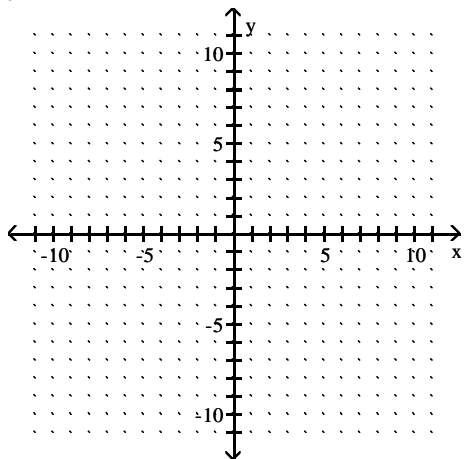
7) $10y - 2x = -4$

7) _____



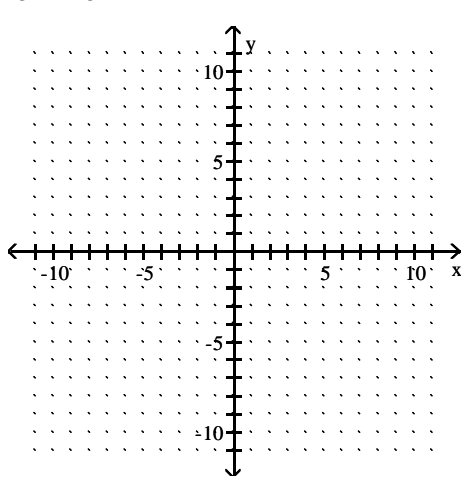
8) $y = -6$

8) _____



9) $\frac{11}{5}x + \frac{3}{5}y = -6$

9) _____



Find the midpoint of the segment with the given endpoints.

10) $(-8, -6)$ and $(-7, -2)$

10) _____

11) $(2, -2)$ and $(-6, 0)$

11) _____

Suppose that segment PQ has the given coordinates for one endpoint P and for its midpoint M. Find the coordinates of the other endpoint Q.

12) $P(0, -9)$ and $M\left(-\frac{3}{2}, 0\right)$

12) _____

Solve the problem.

13) The linear model $C = 700x + 80,000$ represents the cost in dollars a company has in manufacturing x items during a month. Based on this, how much does it cost to produce 700 items?

13) _____

Find the slope of the line through the pair of points.

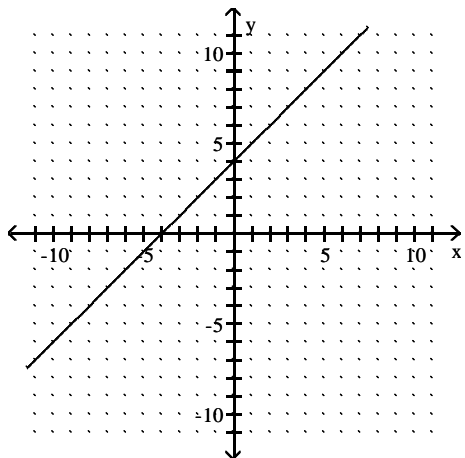
14) $(1, -8)$ and $(-4, 3)$

14) _____

Find the slope of the line.

15)

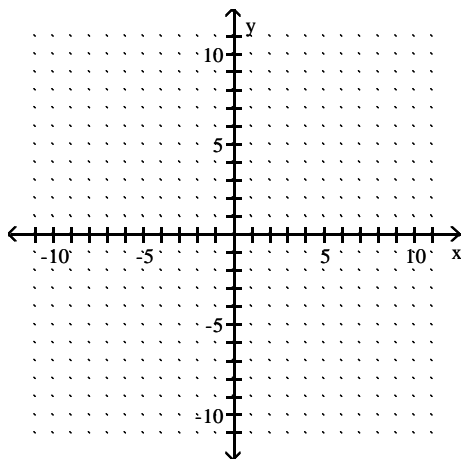
15) _____



Find the slope of the line and sketch the graph.

16) $2x + 5y = 21$

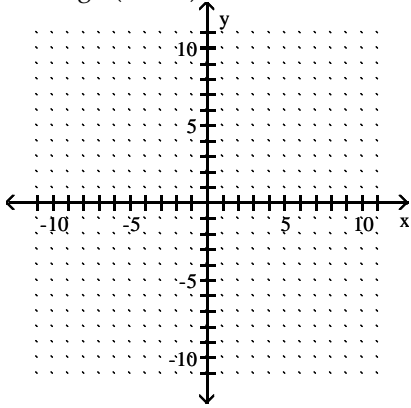
16) _____



Graph the line described.

17) Through $(-3, -4)$; $m = 3$

17) _____



Decide whether the pair of lines is parallel, perpendicular, or neither.

18) The line through $(3, -5)$ and $(-1, 7)$ and the line through $(6, -13)$ and $(-2, 11)$

18) _____

19) $3x - 2y = 6$ and $2x + 3y = 2$

19) _____

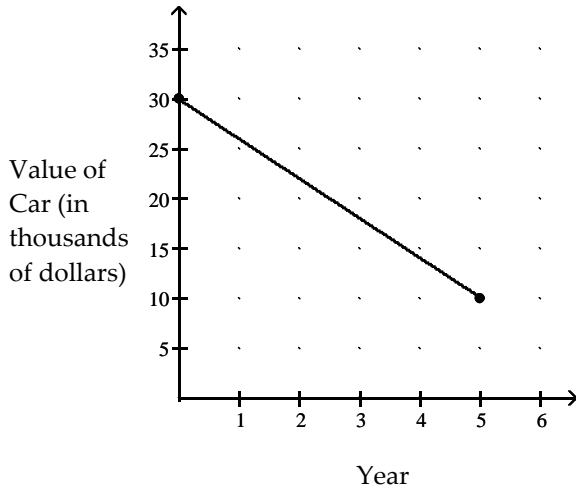
20) The line through $(-20, 5)$ and $(-4, 7)$ and the line through $(-5, 5)$ and $(7, 4)$

20) _____

Find the average rate of change illustrated in the graph.

21)

21) _____



Find the equation in slope-intercept form of the line satisfying the conditions.

22) $m = -8$, passes through $(-3, 4)$

22) _____

Write the equation in slope-intercept form.

23) $x - 8y = 3$

23) _____

Find the slope and the y-intercept of the line.

24) $4x + 9y = 26$

24) _____

Find an equation of the line that satisfies the conditions. Write the equation in standard form.

25) Through $(-9, 10)$; $m = 0$

25) _____

26) x-intercept $(-9, 0)$; $m = -2$

26) _____

Find an equation of the line passing through the two points. Write the equation in standard form.

27) $(7, -3)$ and $(-6, 8)$

27) _____

Find an equation of the line satisfying the conditions. Write the equation in slope -intercept form.

28) Through $(-6, 7)$; parallel to $3x + 7y = 3$

28) _____

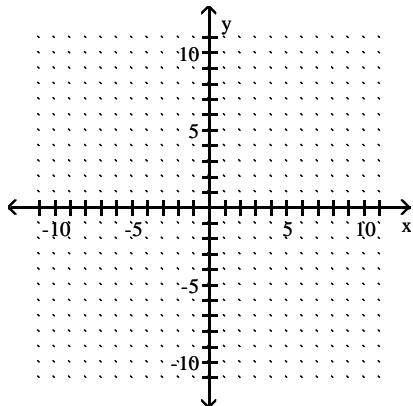
29) Through $(-5, -2)$; perpendicular to $-5x - 2y = 27$

29) _____

Graph the linear inequality in two variables.

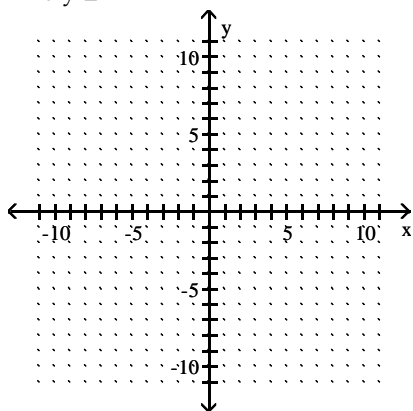
30) $x \geq 5$

30) _____



31) $2x + y \leq -2$

31) _____



Decide whether the relation is a function.

32) $\{(-4, 1), (-3, -6), (3, -8), (3, 4)\}$

32) _____

33) $\{(-3, -3), (-1, 6), (3, 7), (6, -7)\}$

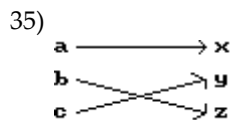
33) _____

Determine whether the relation is a function.

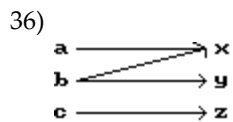
34)

x	-1	1	6	7	12
y	-8	-6	-8	-8	4

34) _____



35) _____



36) _____

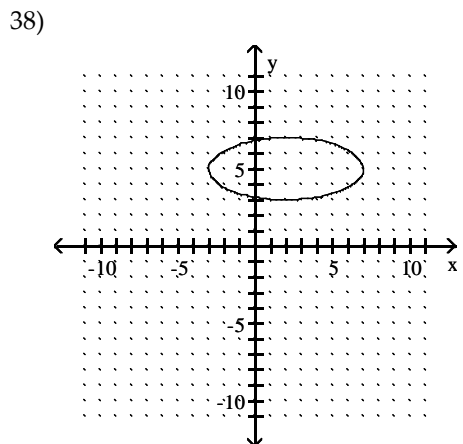
37)

X	Y ₁	
-6	-3	
-5	-2	
-4	-1	
-3	0	
-2	1	
-1	2	
0	3	
1	4	
2	5	
3	6	
4	7	
5	8	
6	9	
7	10	

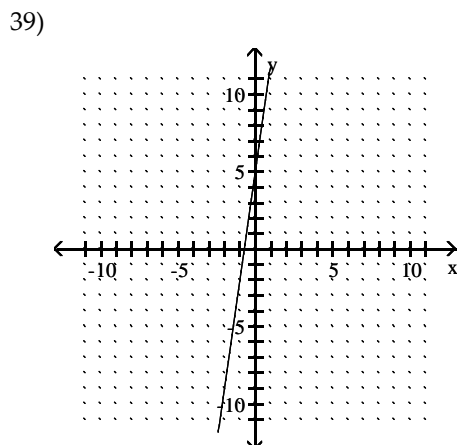
X = -6

37) _____

Decide whether the relation is a function, and give the domain and range.

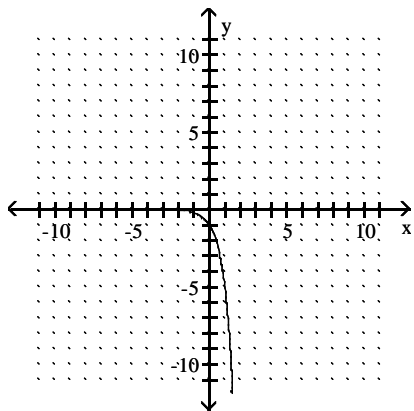


38) _____



39) _____

40)



40) _____

Solve the problem.

41) Find $f(0)$ when $f(x) = x^2 + 4x - 5$.

41) _____

42) Find $f(\frac{1}{4})$ if $f(x) = -5x^2 - 7x - 7$.

42) _____

43) Find $f(k - 1)$ when $f(x) = 4x^2 + 5x + 6$.

43) _____

44) Find $f(-1)$ when $f(x) = 3x^2 + 5x + 6$.

44) _____

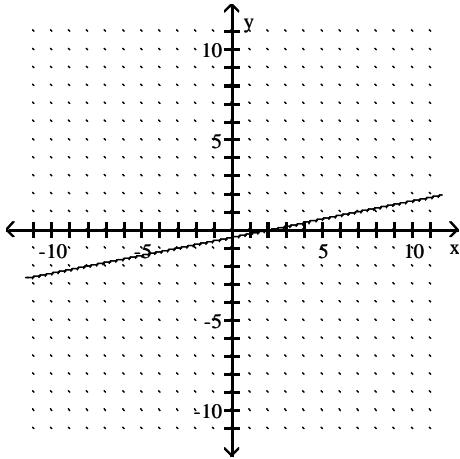
45) Find $g(a + 1)$ when $g(x) = 3x + 2$.

45) _____

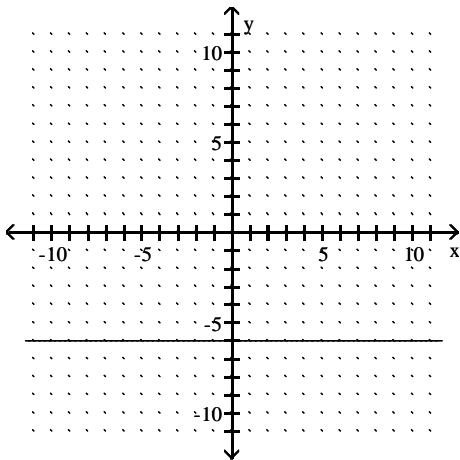
Answer Key

Testname: 1033 PRACTICE FOR THE CHAPTER 3 TEST (V1)

- 1) Month 2
- 2) about \$50 thousand
- 3) x represents the month; y represents the sales in thousands of dollars.
- 4) III
- 5) 0; 7; -2
- 6) 8; -28; 1
- 7) $(2, 0); \left(0, -\frac{2}{5}\right)$



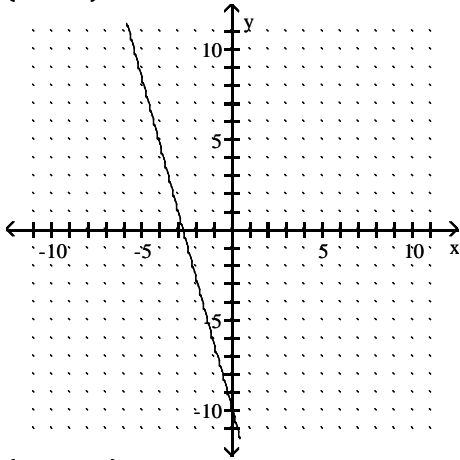
- 8) None; $(0, -6)$



Answer Key

Testname: 1033 PRACTICE FOR THE CHAPTER 3 TEST (V1)

9) $\left(-\frac{30}{11}, 0\right); (0, -10)$



10) $\left(-\frac{15}{2}, -4\right)$

11) $(-2, -1)$

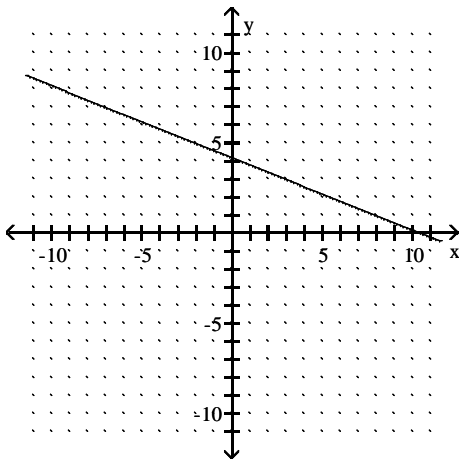
12) Q(-3, 9)

13) \$570,000

14) $-\frac{11}{5}$

15) 1

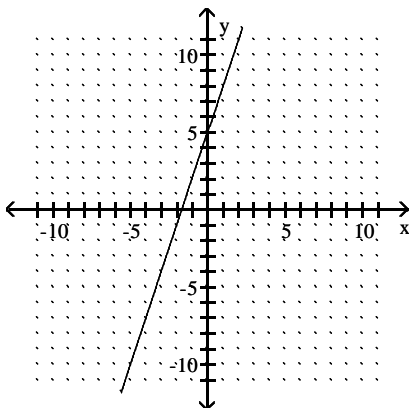
16) Slope: $-\frac{2}{5}$



Answer Key

Testname: 1033 PRACTICE FOR THE CHAPTER 3 TEST (V1)

17)



18) Parallel

19) Perpendicular

20) Neither

21) -\$4000.00 per year

22) $y = -8x - 20$

23) $y = \frac{1}{8}x - \frac{3}{8}$

24) Slope $-\frac{4}{9}$; y-intercept $(0, \frac{26}{9})$

25) $y = 10$

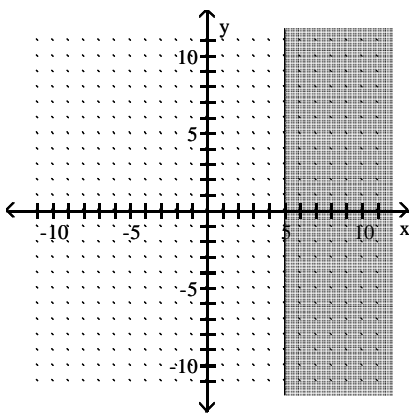
26) $2x + y = -18$

27) $11x + 13y = 38$

28) $y = -\frac{3}{7}x + \frac{31}{7}$

29) $y = \frac{2}{5}x$

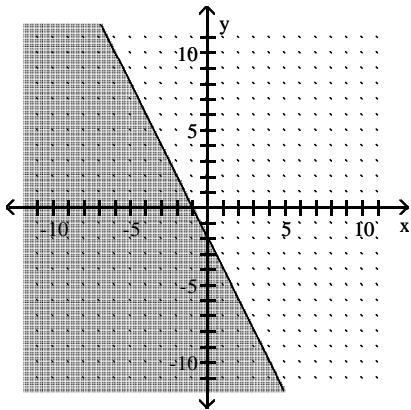
30)



Answer Key

Testname: 1033 PRACTICE FOR THE CHAPTER 3 TEST (V1)

31)



32) Not a function

33) Function

34) Function

35) Function

36) Not a function

37) Not a function

38) Not a function; domain: $[-3, 7]$; range: $[3, 7]$

39) Function; domain: $(-\infty, \infty)$; range: $(-\infty, \infty)$

40) Function; domain: $(-\infty, \infty)$; range: $(-\infty, 0)$

41) -5

42) $-\frac{145}{16}$

43) $4k^2 - 3k + 5$

44) 4

45) $3a + 5$