Chapter 9 Extra Practice Answers

Lesson 9-1

1. yes; Each domain value is paired with exactly one range value.

2. no; The domain value 6 is paired with two range values.

3. no; The graph does not pass the vertical line test.

4. yes; The vertical line test shows that it passes through no more than one point on the graph for each value of x.

5. -4 **6.** -1 **7.** 5 **8.** 8

9. 72 **10.** -90 **11.** 96 **12.** -132

Lesson 9-2

1.

x	$x + y = 2$	y
2	$2 + y = 2$	0
1	$1 + y = 2$	1
0	$0 + y = 2$	2
−1	$-1 + y = 2$	3

(2, 0), (1, 1), (0, 2), (−1, 3)

2.

x	$y = 2x - 6$	y
0	$y = 2(0) - 6$	−6
1	$y = 2(1) - 6$	−4
2	$y = 2(2) - 6$	−2
3	$y = 2(3) - 6$	0

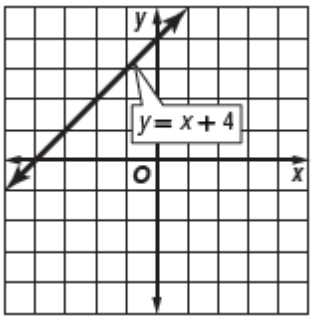
(0, −6), (1, −4), (2, −2), (3, 0)

3-8. Sample answers are given.

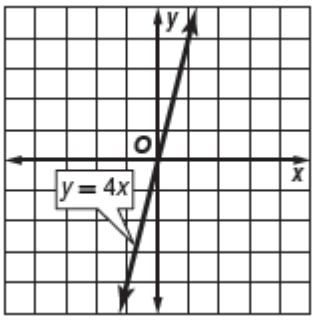
3. (4, −1), (4, 0), (4, 1), (4, 2) **4.** (3, 1), (4, 4), (0, −8), (2, −2) **5.** (1, −4), (0, −2), (−1, 0), (−2, 2)

6. (4, 0), (0, −2), (2, −1), (−2, −3) **7.** (−2, −4), (0, −3), (2, −2), (4, −1) **8.** (−1, −6), (0, −5), (2, −3), (5, 0)

9.



10.



Lesson 9-3

1. 12 gallons per minute

2. −0.01 inch per minute

3. $-\frac{1}{2}$ c/cookie; The amount of flour remaining decreases by $\frac{1}{2}$ cup for each cookie.

4. 10 in/year; The bamboo grows 10 inches every year.

5. 3

6. 0

7. −11

8. 2

9. 3

10. undefined

Lesson 9-4

1a. yes; the ratio, 60 mi/h, is a constant rate. Since the graph passes through the origin and the ratios are constant, the distance traveled varies directly with the time.

1b. 60; This means the rate of speed for the trip was 60 miles per hour.

2a. $y = 7x$

2b. $17.50

3a. $y = 7.6x$

3b. $190

Lesson 9-5

1. 1; 9

2. 2;−5

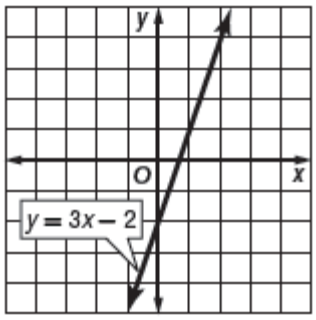
3. −6; 0

4. $\frac{3}{2}$; 0

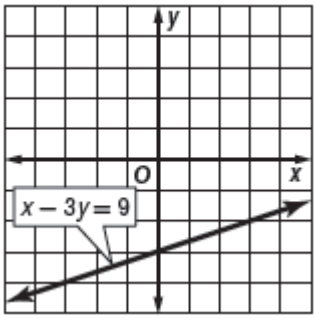
5. $\frac{1}{3}$; 8

6. $-\frac{1}{2}$; 6

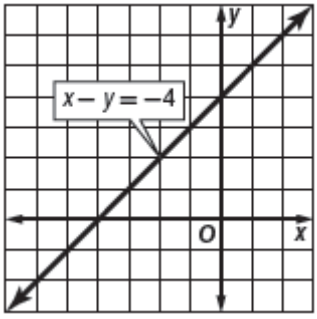
7.



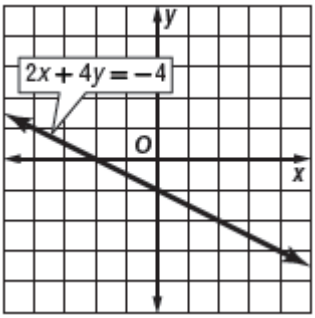
8.



9.

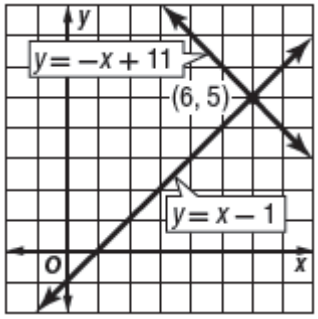


10.

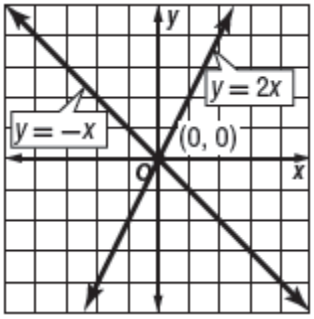


Lesson 9-6

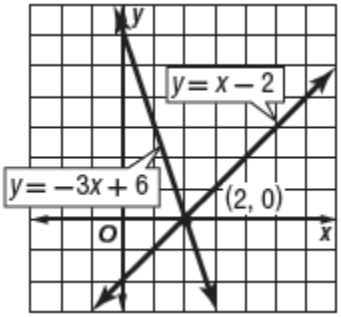
1. (6, 5)



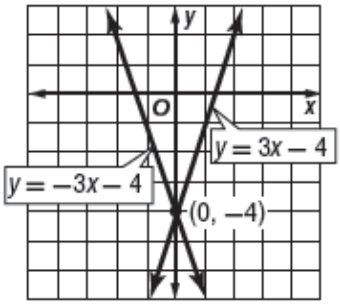
2. (0, 0)



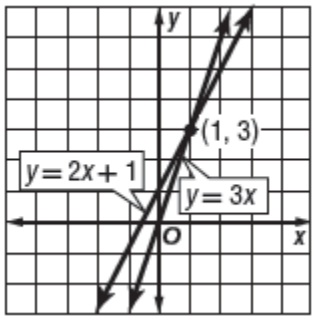
3. (2, 0)



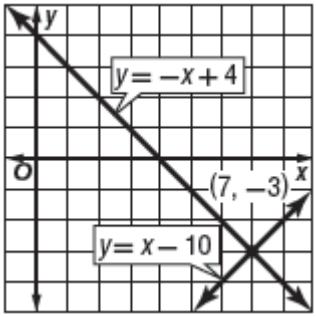
4. (0, –4)



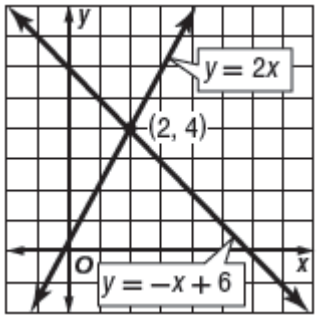
5. (1, 3)



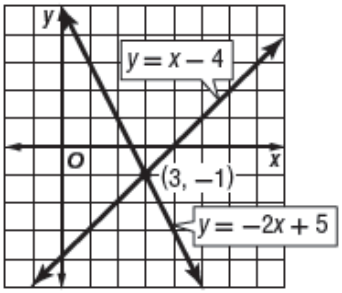
6. (7, –3)



7. (2, 4)



8. (3, –1)



Lesson 9-7

1. (6, 4)
2. (–10, –2)
3. (11, 6)
4. (–10, –4)
5. (12, 3)
6. (–2, 2)
7. (–5, –10)
8. (–24, –12)
9. (–4, –12)
10. (–3, 1)
11. (2, 3)
12. (–2, –2)
13. $(1, \frac{1}{2})$
14. (6, 2)
15. (5, 15)