

Answer Key

Lesson 1-2

$$7. \begin{aligned} 2(12 - 4 \cdot 3) &= 2(12 - 12) && \text{Substitution (=)} \\ &= 2(0) && \text{Substitution (=)} \\ &= 0 && \text{Multiplicative} \\ &&& \text{Property of Zero} \end{aligned}$$

$$8. \begin{aligned} 4 + (7 - 21 \div 3) &= 4 + (7 - 7) && \text{Substitution (=)} \\ &= 4 + 0 && \text{Substitution (=)} \\ &= 4 && \text{Additive Identity} \end{aligned}$$

$$9. \begin{aligned} 3(2 + 1) \div 9 \cdot 5 &= 3(3) \div 9 \cdot 5 && \text{Substitution (=)} \\ &= 9 \div 9 \cdot 5 && \text{Substitution (=)} \\ &= 1 \cdot 5 && \text{Substitution (=)} \\ &= 5 && \text{Multiplicative} \\ &&& \text{Identity} \end{aligned}$$

Lesson 1-3

$$4. \begin{aligned} 9 + n + 3 &= 9 + 3 + n && \text{Commutative (+)} \\ &= (9 + 3) + n && \text{Associative (+)} \\ &= 12 + n && \text{Substitution (=)} \end{aligned}$$

$$5. \begin{aligned} 12 \cdot t \cdot 4 &= 12 \cdot 4 \cdot t && \text{Commutative (}\times\text{)} \\ &= (12 \cdot 4) \cdot t && \text{Associative (}\times\text{)} \\ &= 48t && \text{Substitution (=)} \end{aligned}$$

$$6. \begin{aligned} 11 \cdot (8g) &= (11 \cdot 8) \cdot g && \text{Associative (}\times\text{)} \\ &= 88g && \text{Substitution (=)} \end{aligned}$$

$$7. \begin{aligned} (k + 18) + 1 &= k + (18 + 1) && \text{Associative (+)} \\ &= k + 19 && \text{Substitution (=)} \end{aligned}$$

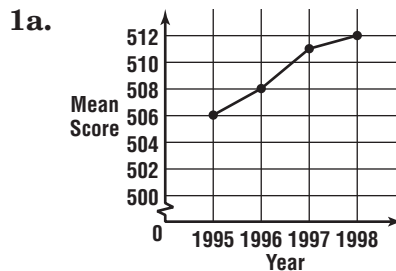
$$8. \begin{aligned} 2p + (6 + p) &= 2p + (p + 6) && \text{Commutative (+)} \\ &= (2p + p) + 6 && \text{Associative (+)} \\ &= 3p + 6 && \text{Substitution (=)} \end{aligned}$$

$$9. \begin{aligned} (7 \cdot 4) \cdot 25 &= 7 \cdot (4 \cdot 25) && \text{Associative (}\times\text{)} \\ &= 7 \cdot 100 && \text{Substitution (=)} \\ &= 700 && \text{Substitution (=)} \end{aligned}$$

Lesson 1-6

Number of Pets	Tally	Frequency
0	###	5
1	###	5
2	###	6
3	###	5
4		2
5		1

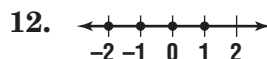
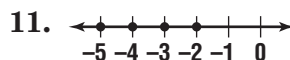
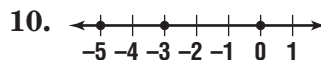
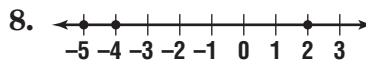
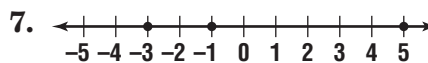
Lesson 1-7



Chapter 1 Review

- $5 \cdot 1 + 6 \div 2 = 8$
- $3 \cdot (8 + 2) = 30$
- $9 \div (5 - 8 \div 4) = 3$
- $2x + 7x + 6y + 8x = 17x + 6y$
- $5(n + 1) + 3(n + 6) = 8n + 23$
- $6 + 5 = 5 + 6$; Commutative Property (+)

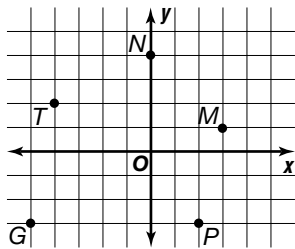
Lesson 2-1



Answer Key

Lesson 2-2

10-14.



Chapter 2 Review

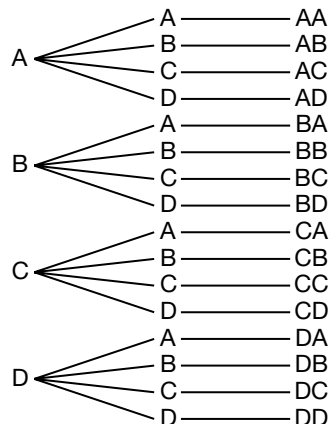
- 1a. 1°C 1b. 5°C 1c. -7°C 1d. 3°C
 1e. -2°C 1f. 21°C 2. Berlin: 34°F ; London: 42°F ; Montreal: 18°F ; Paris: 38°F ; Beijing: 28°F ; Sao Paulo: 74°F 3. Sao Paulo, Brazil, is in the southern hemisphere, and December is summertime in the southern hemisphere. 4. Answers will vary.

Chapter 3 Review

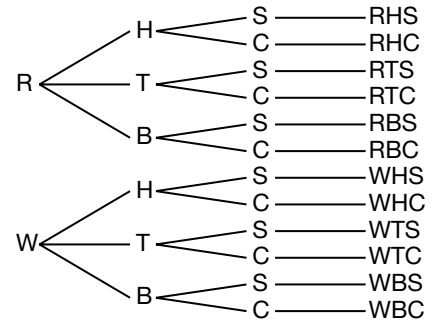
1. -3 2. 5 3. -12 4. 6 5. 7 6. -30
 7. -7 8. 31 9. -9 10. 4 11. 8
 Solution to puzzle: algebra is fun

Lesson 4-2

1. 16; Question 1 Question 2 Outcomes



2. 12; Bread Meat Cheese Outcomes



Chapter 4 Review

1. 4 2. 4 3. -11 4. -10 5. 1 6. -3
 7. 21 8. 6 9. 2

There are 900 lockers. The locker is located on floor 2, next to room 6, and is number 21.

Chapter 5 Review

Answers will vary depending on the number of children and adults that students observe. The following are sample answers.

1.

	Location 1	Location 2	Location 3
Children	32	18	24
Adults	48	14	51
Total	80	32	75
Ratio of children to total	$\frac{2}{5}$	$\frac{9}{16}$	$\frac{8}{25}$
Ratio of adults to total	$\frac{3}{5}$	$\frac{7}{16}$	$\frac{17}{25}$

2.

	Location 1	Location 2	Location 3
Number of children out of 50	20	28	16
Number of adults out of 50	30	22	34

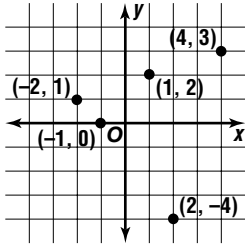
3. In the community, about 40% of the people are children and 60% are adults.

Answer Key

Lesson 6-1

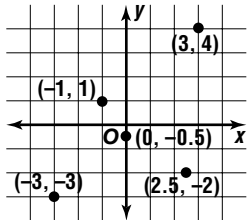
1.

x	y
-2	1
-1	0
1	2
2	-4
4	3



2.

x	y
-3	-3
-1	1
0	-0.5
2.5	-2
3	4



3.

x	y
-4	-4
-3	2
-1	-2
2	-1

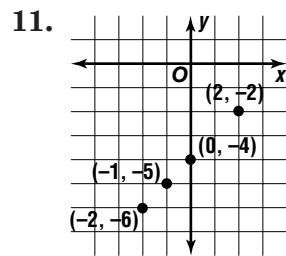
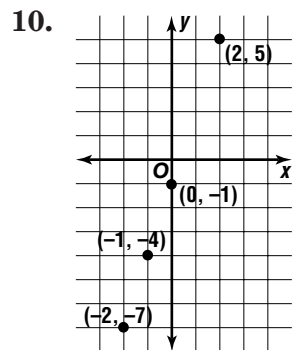
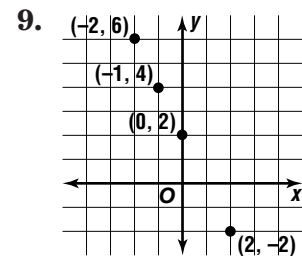
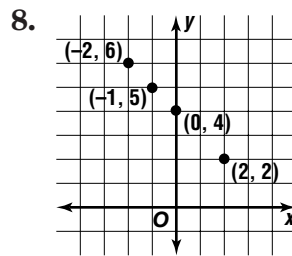
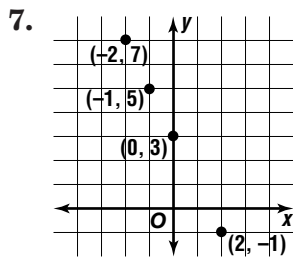
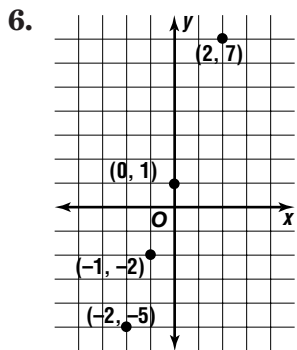
4.

x	y
-1	2
1	-2
2	2
3	-3

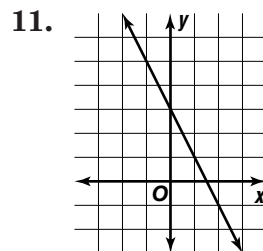
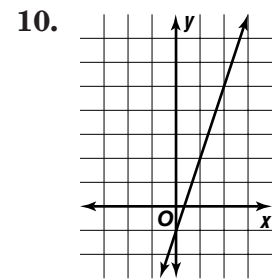
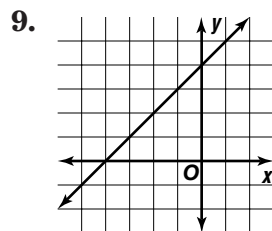
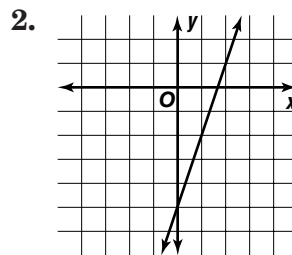
5.

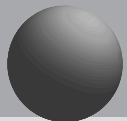
x	y
-3	-2
-3	1
-1	2
0	-3

Lesson 6-2

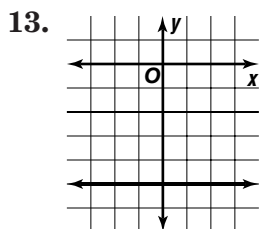
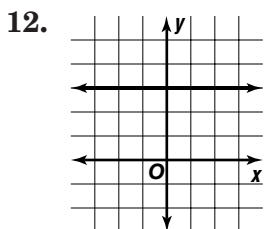


Lesson 6-3

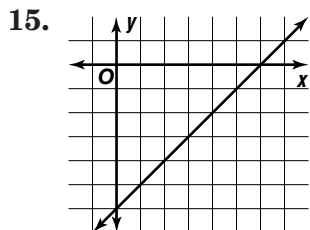
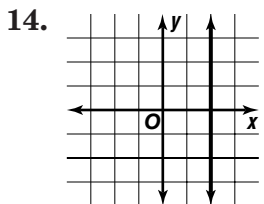
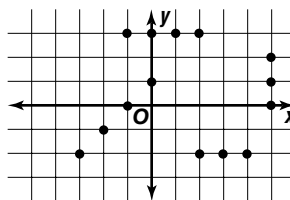




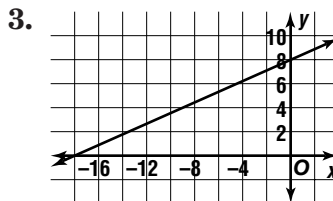
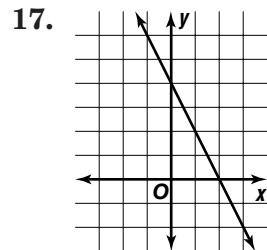
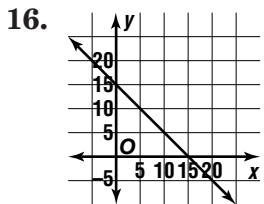
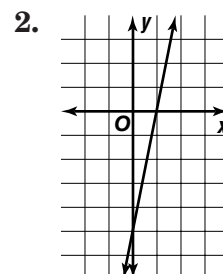
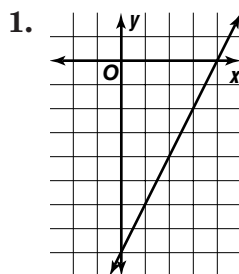
Answer Key



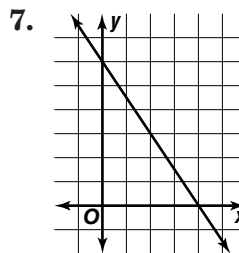
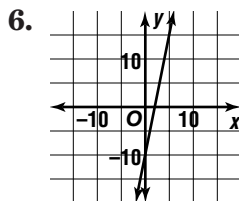
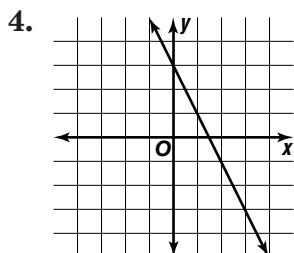
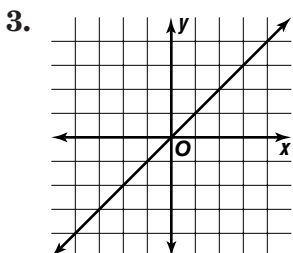
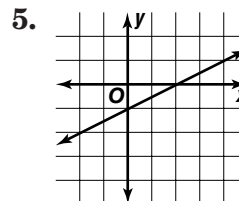
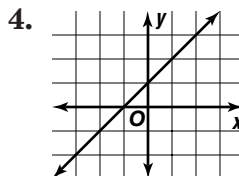
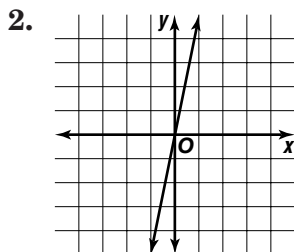
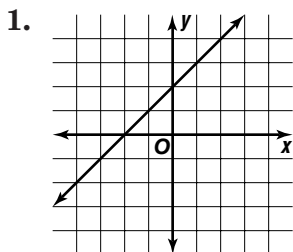
Clue 5: 4



Lesson 7-5



Lesson 6-5



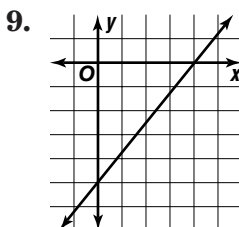
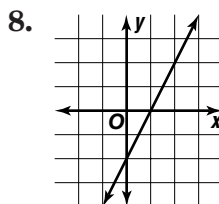
Chapter 6 Review

Clue 1: $D = \{0, 5\}$

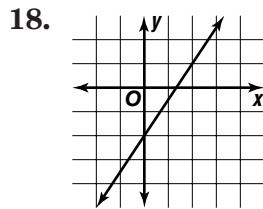
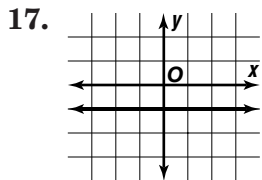
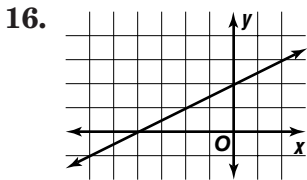
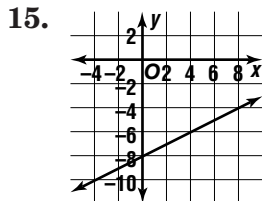
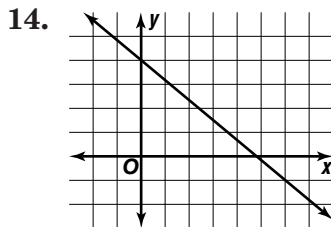
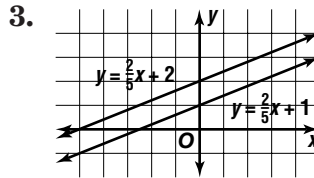
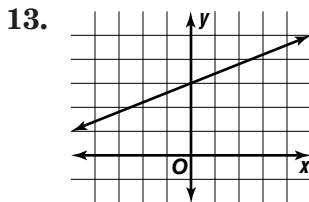
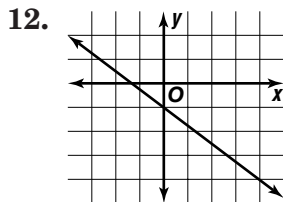
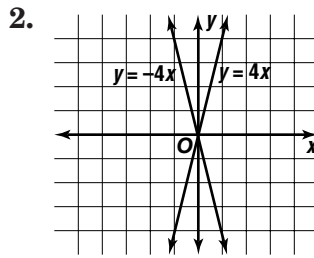
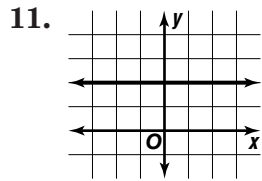
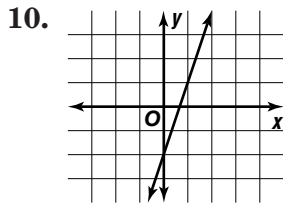
Clue 2: $R = \{-2, 0\}$

Clue 3: The points are $(-2, -1)$, $(-1, 0)$, and $(2, 3)$.

Clue 4: no; yes; yes

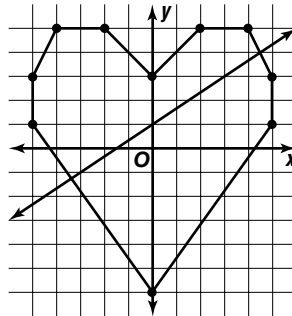


Answer Key



Chapter 7 Review

1. $m = -2$ 2. $m = 0$ 3. undefined slope
 4. $y = 5$ 5. $x = -5$ 6. Sample answer:
 $y - 3 = 2(x + 5)$ 8. $m = -\frac{7}{5}$
 10. $y = -x + 3$



Chapter 8 Review

The path through the maze is 1, 11, 8, 12, 5, 7, 15, and 4.

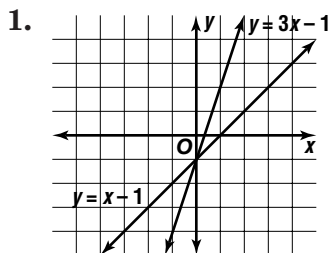
1 (10 mm), 11 (6×10^5), 8 (go to 12), 12 (no), 5 ($2x$), 7(100), 15(3×10^{-15}), and 4.

Answers to other rooms are 2. no 6. yes
 9. false 14. true

Chapter 9 Review

1. $x^2 - 2x$ 2. $x^2 - 4x + 4$ 3. $4x^2 - 4x + 4$
 4. $x^2 - x + 1$ 5. $4x + 5$ 6. $20x^2 + 65x + 50$
 7. $40x^4 + 130x^3 + 100x^2$ 8. 540,000; The number of pennies is 540,000. The charity generated \$5400 dollars.

Lesson 7-6



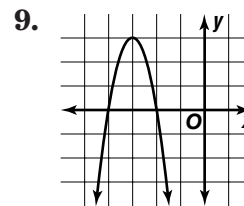
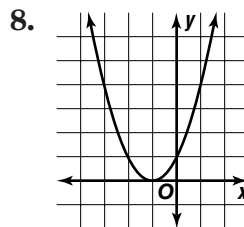
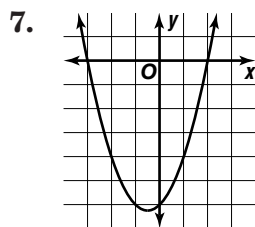
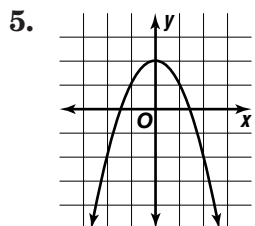
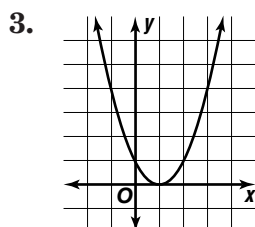
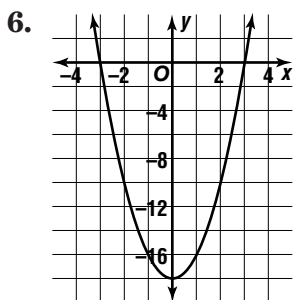
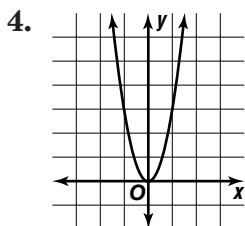
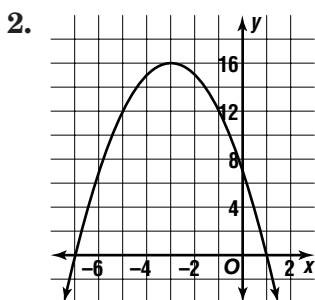
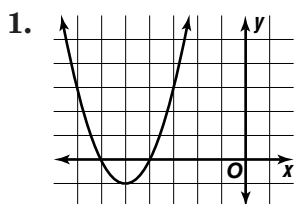
Answer Key

Chapter 10 Review

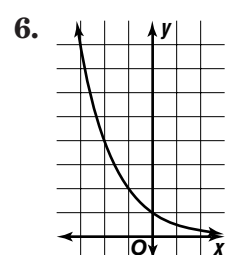
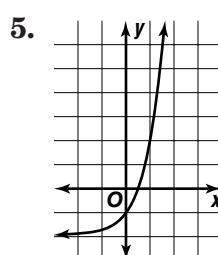
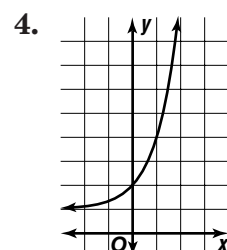
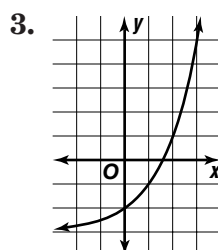
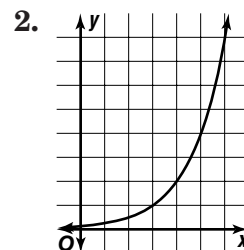
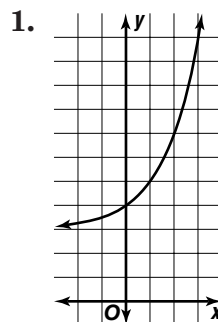
1. $9x(2 - y)$ 2. $2x(2x^2 + 3)$
 3. $(x - 8)(x + 8)$ 4. $(x - 4)(x + 4)$
 5. $2(x - 4)(x + 4)$ 6. $(x + 2)(x + 4)$
 7. $(x - 4)(x - 2)$ 8. $(x - 3)(x + 4)$
 9. $(x - 4)(x + 3)$ 10. $2(x + 2)(x - 4)$
 11. $(2x + 1)(x + 4)$ 12. $(2x - 1)(x - 4)$

The outdated technology: EIGHT TRACK

Lesson 11-1

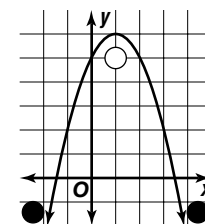


Lesson 11-7



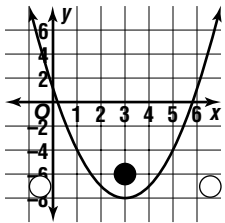
Chapter 11 Review

Hole 1: $y = -x^2 + 2x + 5$

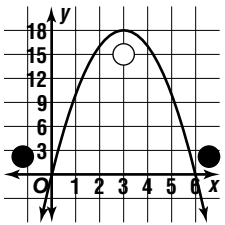


Answer Key

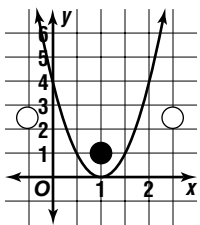
Hole 2: $y = x^2 - 6x + 1$



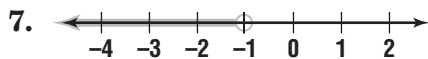
Hole 3: $y = -2x^2 + 12x$



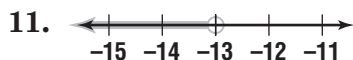
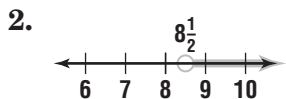
Hole 4: $y = 4x^2 - 8x + 4$



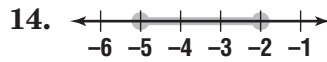
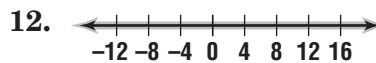
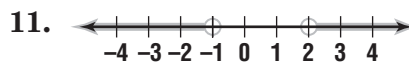
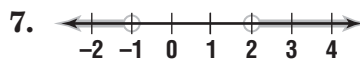
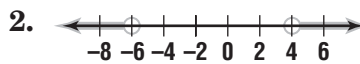
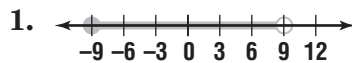
Lesson 12-1



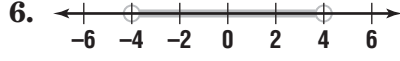
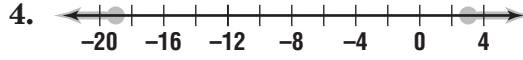
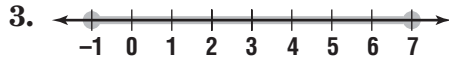
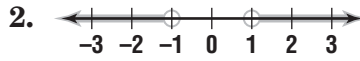
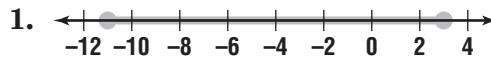
Lesson 12-2

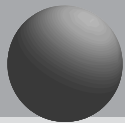


Lesson 12-5



Lesson 12-6

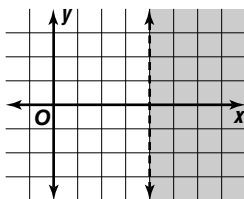




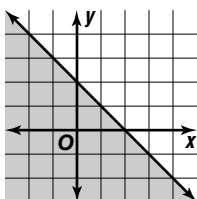
Answer Key

Lesson 12-7

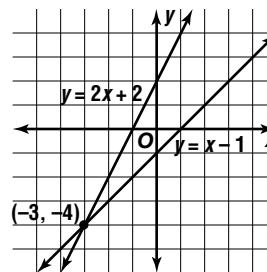
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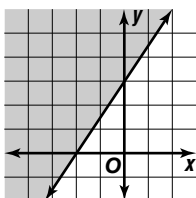
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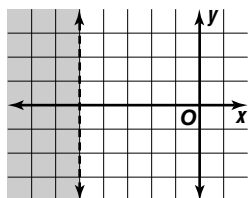
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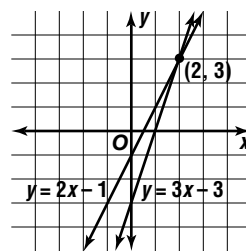
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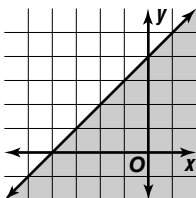
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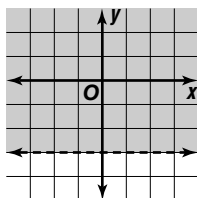
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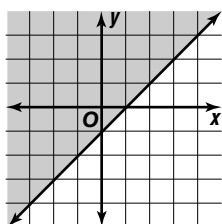
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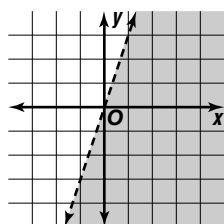
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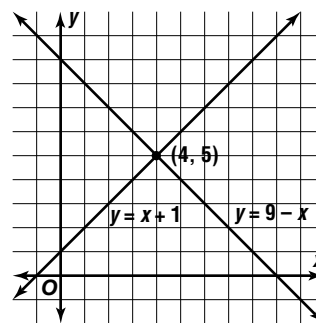
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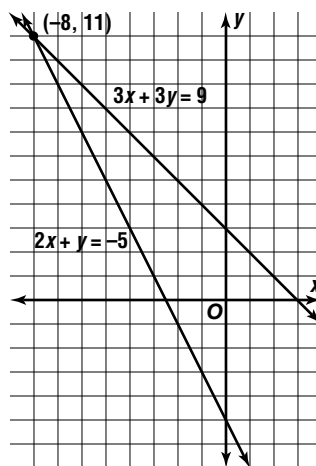
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4.



5.

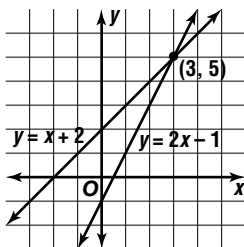


Chapter 12 Review

1. $x \leq 4$ 2. $t > 4$ 3. $n < 4$ 7. $w < 5$ and $w > -3$ 9. $p \geq 5$ or $p \leq -3$
 NY YANKEES TICKETS

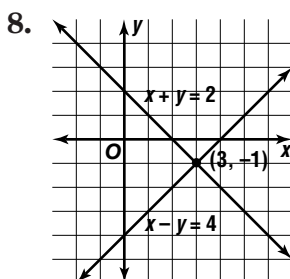
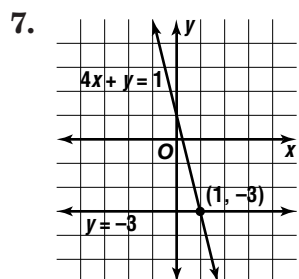
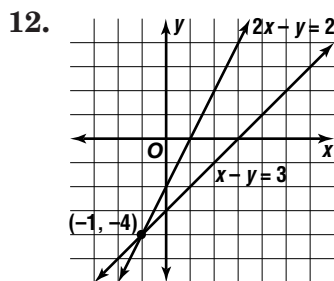
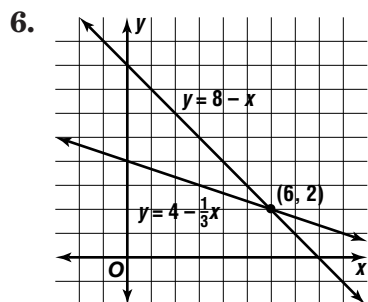
Lesson 13-1

1.

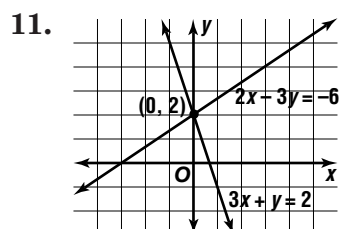
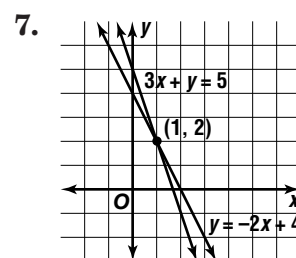
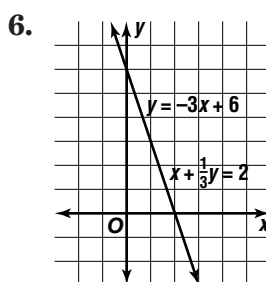
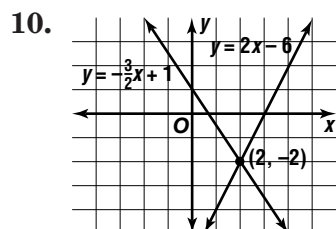
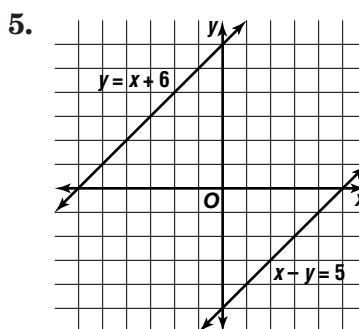
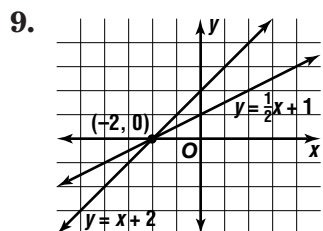
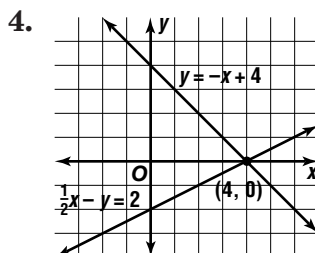




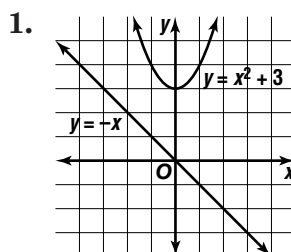
Answer Key

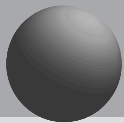


Lesson 13-2

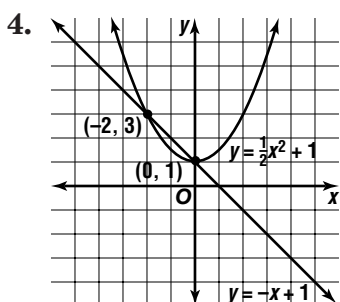
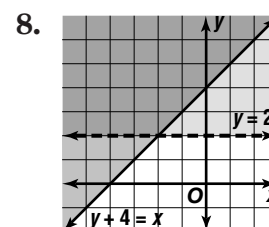
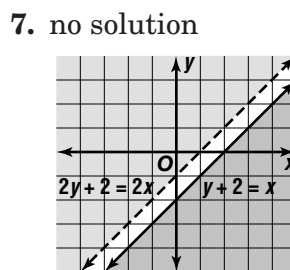
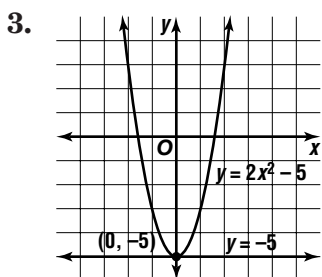
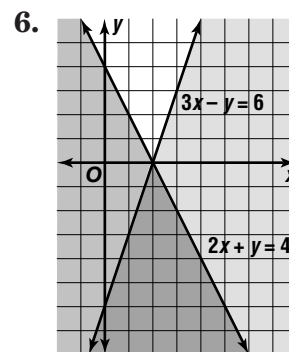
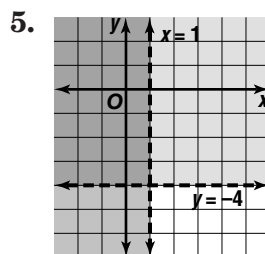
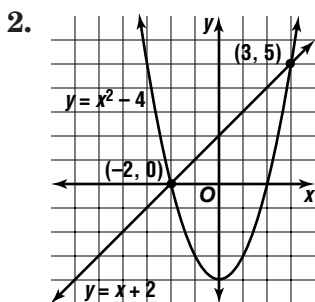


Lesson 13-6





Answer Key

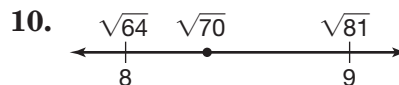
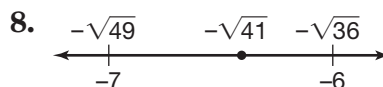
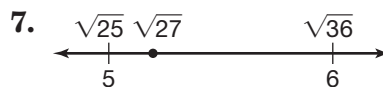
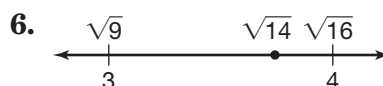
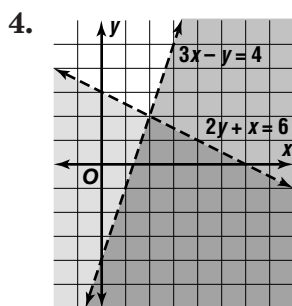
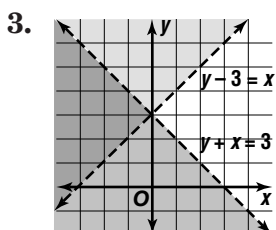
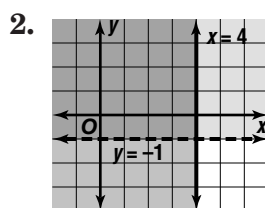
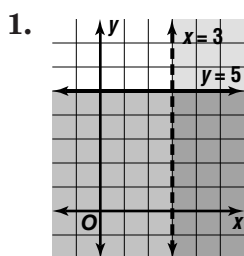


Chapter 13 Review

Gold: $(-2, 4)$; Silver: $(4, -3)$; Diamonds: no solution; Jewels: $(-1, 0)$; The gold is nearest to the starting point, $(0, 5)$.

Lesson 14-1

Lesson 13-7





Answer Key

Chapter 14 Review

- 8 (X—Leaky Roof)
- $4|x|\sqrt{5}$
- $6b^2|c|\sqrt{2ab}$
- 3 (X—Leaky Roof)
- $\sqrt{6}$
- $-3\sqrt{5} + 4\sqrt{7}$
- 0 (X—Leaky Roof)
- $3 + 2\sqrt{3}$
- $-31 - 5\sqrt{5}$
- $\frac{30 - 5\sqrt{3}}{33}$

Chapter 15 Review

- $\frac{3x}{y}$
- $\frac{x}{3}$
- $\frac{x+4}{2(x+2)}$
- 1
- $x^2 + 2x - 1$
- 6
- $-\frac{8}{35x}$
- $\frac{2x}{(x+3)(x-3)}$

