Answers for 3.1

For use with pages 111–112

3.1 Practice and Problem Solving

6. subtracting 4

8. adding 35

10. 7 **12.** 2

14. 17 **16.** 40

18. 245 **20.** −37

22. no; $540 = f + 29$

24. yes

26. subtracting −5, which is equivalent to adding 5

28. $\frac{1}{3}$ **30.** 1

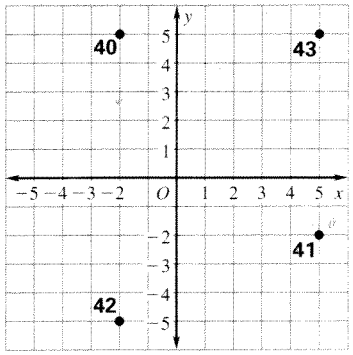
32. 0.2 **34.** 2

36. 59 in.; length at birth + inches grown = length of adult; $45 + \ell = 104$

38. 2.9

3.1 Mixed Review

40, 42.



40. Quadrant II

42. Quadrant III

44. 190, 300 **46.** 280, 350

3.1 Test-Taking Practice

48. D

Answers for 3.2

For use with pages 115–116

3.2 Practice and Problem Solving

6. 48 **8.** 8

10. 13 **12.** 350

14. 3 **16.** 0.5

18. $8

20. multiplying by −9

22. −6 **24.** −19

26. 9 **28.** −20

30. −31.5 **32.** −44

34. $178,750

36. 9

3.2 Mixed Review

38. $3 > -6$ **40.** $-12 < -5$

42. twelve thousand, four hundred forty-eight

44. five and one hundred seven thousandths

3.2 Test-Taking Practice

46. B

Answers for 3.4

For use with pages 126–128

3.4 Practice and Problem Solving

8. $\frac{18}{n} - 7 = 2$; 2

10. $5 **12.** 7 boxes

14. *Sample Answer:* $x - 3 = 5$; $2x + 2 = 18$

16. $3n - \left(-\frac{1}{2}\right) = -\frac{5}{2}$; −1

18. $\frac{n}{2} - 3 = 8$; 22

20. 10 mi

22. by how much your running time increases each week

24. $2 + 3 + 3n = -4$; −3

26. $\frac{8^2}{16} \cdot n = 24$; 6

3.4 Mixed Review

28. $P = 60$ in.; $A = 225$ in.^{2}

30. 10 **32.** 9

3.4 Test-Taking Practice

34. $y = 2x + 2$; $22

Answers for 3.3

For use with pages 121–123

3.3 Practice and Problem Solving

10. 1 **12.** 5 **14.** 8

16. $4\frac{1}{2}$, or 4.5

18. −8 **20.** −6

22. $81(12) + 8 = 972 + 8$
$= 980$ in.

24. 3 **26.** 1

28. 81 **30.** 6

32. 30 **34.** −23

36. 6 walks

38. Use the distributive property; subtract 6 from each side; simplify; divide each side by 2; simplify.

40. 2 **42.** 3 **44.** 4

46. $29\frac{1}{3}$; if you plan to go to the pool for more than 29 days, it is cheaper to buy a summer pass than to buy day passes.

3.3 Mixed Review

48. 10 **50.** −5

52. 5; 15; *Sample Answer:* I used Draw a Diagram to show who would be in each race and then I counted to find the answers.

54. 75% **56.** 35%

3.3 Test-Taking Practice

58. B; she earned $16 per game for g games, for a total of 16g. She spent $24 on the course. Because profit is the difference between income and expenses, her total profit was $16g - 24$, which equals 280.

ANSWERS FOR 3.5

For use with pages 137–139

3.5 Practice and Problem Solving

6. $A = 12$ cm^2; $P = 16$ cm

8. $A = 30$ ft^2; $P = 30$ ft

10. 7 in. **12.** 13 in.

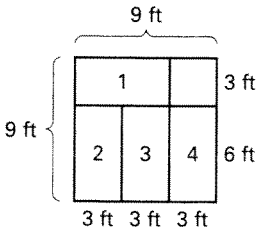
14. 8 ft

16. The perimeter of a rectangle is $P = 2\ell + 2w$. A square of side length s is a rectangle with length s and width s, so $P = 2s + 2s$, or $P = 4s$. The area of a rectangle is $A = \ell w$. For a square then, $A = s \cdot s$, or $A = s^2$.

18. 9 m **20.** $\frac{20}{w}$ in.

22. 76 m^2 **24.** 81 ft^2

26.



28. Doubles the area.

30. Area stays the same.

32. 504 in.^{2} **34.** 9 rolls

3.5 Mixed Review

36. -7 **38.** 5

40. -2 **42.** 18

44. 6 wk; about 7 wk

46. $-5 > -6$

48. $13 = |13|$

3.5 Test-Taking Practice

50. I

ANSWERS FOR 3.6

For use with pages 142–145

3.6 Practice and Problem Solving

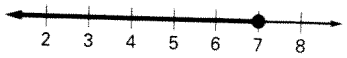
10. $x > -2$ **12.** $x \leq 2$

14. no **16.** yes

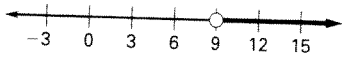
18. z is less than or equal to 8.

20. w is greater than or equal to -15.

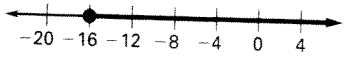
22. $k \leq 7$



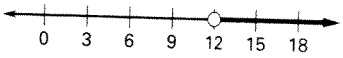
24. $n > 9$



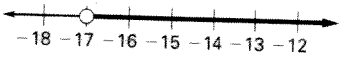
26. $m \geq -16$



28. $d > 12$

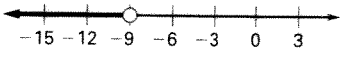


30. $x > -17$

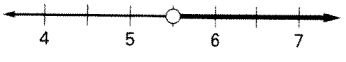


32. *Sample Answer:* $p - 3 < 3$

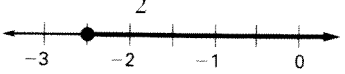
34. $b < -9$



36. $w > 5.5$



38. $k \geq -2\frac{1}{2}$



40. $233.6 + x > 250.2$; $x > 16.6$ m

42. yes **44.** yes

46. $x \geq \$25{,}000$ and $x \leq \$34{,}000$

48. t is greater than or equal to 7 and t is less than 9.

50. It has risen so it is at least 2000 at most 4556.

52. $\$42{,}000 \leq c \leq \$2{,}400{,}000$

3.6 Mixed Review

54. -20 **56.** -8

58. 64.7

3.6 Test-Taking Practice

60. $x + 35 \leq 60$; $x \leq 25$; the most Lauren can spend on the backpack is \$25.

ANSWERS FOR 3.7

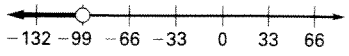
For use with pages 148–149

3.7 Practice and Problem Solving

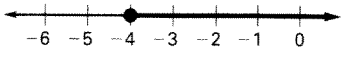
10. C **12.** B

14. $t \leq -21$

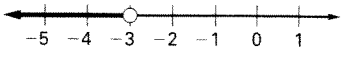
16. $d < -99$



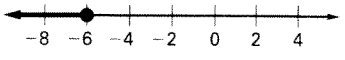
18. $s \geq -4$



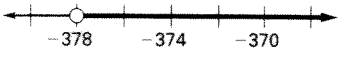
20. $z < -3$



22. $t \leq -6$

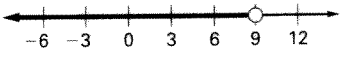


24. $a > -378$

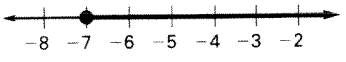


26. $5.5s \geq 275$; $s \geq 50$ students

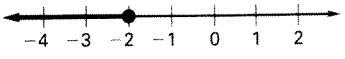
28. $y < 9$



30. $t \geq -7$



32. $z \leq -2$



34. in 12 wk

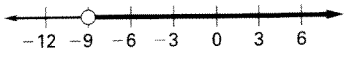
36. $x \leq 2.6$ **38.** $-3 < x < 5$

40. $2 < x < 20$

3.7 Mixed Review

42. 0 **44.** 0

46. $s > -9$



48. 420

3.7 Test-Taking Practice

50. $150p \leq 2000$; the number of people; the maximum number of people the elevator can hold is 13.