

# Answers to Course 2 Unit 3 Practice

## LESSON 8-1

- 1:11
  - 2:1
  - 1:3
  - 4:11
  - 8:11
- D
- B
- 11.5 points per game
- 3:5

## LESSON 8-2

- C
- 68
  - 10.5
  - 15.4
- $\frac{0.75}{2} = \frac{n}{7}; n = 2.265$
  - $\frac{3}{7} = \frac{n}{70}; n = 30$
  - $\frac{380}{4} = \frac{n}{15}; n = 1425$
- $\frac{10}{8} = \frac{35}{n}$
- B

## LESSON 8-3

- 22.9
  - 24.8
  - 7.9
  - 56.6
- B
- about 24 oz
- about 3510 km
- B

## LESSON 9-1

- Method 1: Use cross-products:  $4x = (28)(9)$ ;  
 $x = 63$ .  
Method 2: The numerator 28 is 7 times greater than the numerator 4; multiply the denominator 9 by the same factor, 7, which gives 63.
- No, the cross products are not equal.
  - Yes, the cross products are equal.
- B
- B
- 350 miles
  - about 5.25 hours
  - (0, 0) means that 0 miles are traveled after 0 hours of driving.
  - (1, 35) means that 35 miles are traveled after 1 hour of driving.
  - $y = 35x$

## LESSON 9-2

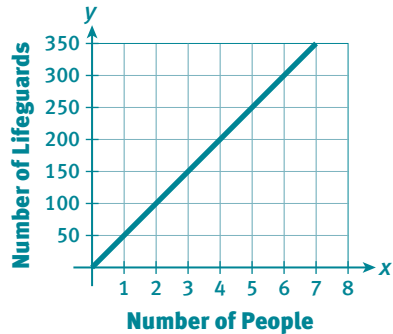
21. a. 50

b.  $x$  = the number of lifeguards,  $y$  = the number of people;  $y = 50x$

c. Sample answer:

|                      |   |    |     |     |     |
|----------------------|---|----|-----|-----|-----|
| Number of Lifeguards | 0 | 1  | 2   | 3   | 4   |
| Number of People     | 0 | 50 | 100 | 150 | 200 |

d.



e. 350 people

22. B

23. Yes, it is a proportional relationship. Let  $x$  equal the number of hours and  $y$  equal the miles driven;  $y = 65x$

24. B

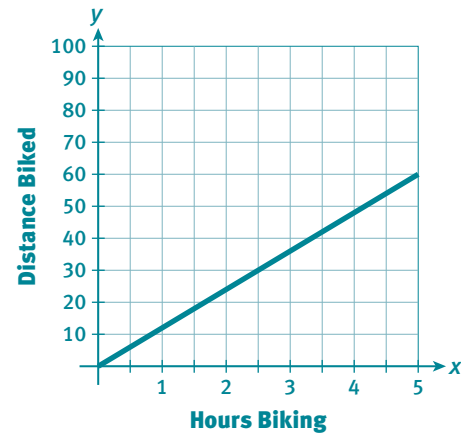
25. a. 12

b.  $x$  is the number of hours;  $y$  is the miles bicycled;  $y = 12x$

c.

|                 |   |    |    |    |    |
|-----------------|---|----|----|----|----|
| Number of Hours | 0 | 1  | 2  | 3  | 4  |
| Biking Distance | 0 | 12 | 24 | 36 | 48 |

d.



e. 84 miles

## LESSON 10-1

26. a.  $y = 3.5x$

b.  $y = 4x$

c.  $y = 5.5x$

27. C

28. a. 9.5 feet

b. 10.83 feet

29. D

30. a.  $\frac{4}{7}$

b.  $\frac{9}{6}$

c.  $\frac{5}{4}$

d.  $\frac{9}{5}$

## LESSON 10-2

31. a. 60 miles

b. 15 miles

c. 90 miles

32. C

33. a. 6 inches  
b. 15 inches  
c. 3 inches

34. B

35. a.  $\frac{\text{inches}}{\text{miles}} = \frac{1}{75}$   
b. 14 inches  
c. 150 miles

### LESSON 10-3

36. C

37. a. 6 inches by 9 inches  
b. 12 inches by 18 inches  
c. 18 inches by 27 inches  
d. 36 inches by 54 inches

38.  $\frac{1}{3}$

39. C

40. 10.5 inches by 13.5 inches

### LESSON 11-1

41. a. 60%  
b. 500  
c. 98  
d. 75  
e. 56.67%

42. 57.33%

43. B

44. B

45. 45 marbles

### LESSON 11-2

46. B

47. \$3,060

48. \$6.44

49. 7.5%

50. C

### LESSON 12-1

51. a. \$1.10  
b. 28%  
c. decrease

52. B

53. C

54. 157%

55. \$36.00

### LESSON 12-2

56. A

57. 21.7%

58. B

59. 33.3%

60. \$25.00

### LESSON 12-3

61. a. \$1,440

b. \$9,440

62. C

63. \$264

64. A

65. 48 months

### LESSON 12-4

66. a. 19 feet

b. actual

c. 4.6%

67. B

68. 368

69. A

70. 9.6%