Page 86/ 2-10 all, 15-20 all, 24, 25, 41 - 47, 51 - 63 odd

2. If two nonvertical lines are parallel, their slopes are equal; if two nonvertical lines are perpendicular, their slopes are negative reciprocals of each other.

3. $\frac{3}{2}$; rises **4.** $\frac{1}{2}$; rises

5. $-\frac{5}{3}$; falls **6.** 0; is horizontal

7. -4; falls

8. undefined; is vertical

9. $\frac{7}{4}$; rises **10.** $\frac{3}{4}$; rises

15. The x- and y-coordinates were not subtracted in the correct order; $\frac{-1-(-3)}{2-(-4)} = \frac{1}{3}$.

16. Slope should be calculated using rise over run, not run over rise; $\frac{1-4}{5-(-1)} = -\frac{1}{2}$

17. A

18. perpendicular

19. neither **20.** parallel

24. \$6/h **25.** 13 mi/gal

41. $\frac{7}{12}$ **42.** $\frac{80}{137}$

43. 6.5%

44. Each part of the three-section ramp has a slope of $\frac{1}{16}$, which is one third the single-scection ramp's slope of $\frac{3}{16}$. The three-section ramp is easier to climb because the incline is less steep.

45. A

46. 0.045 cm/yr

47. **a.** $\frac{3}{8}$

b. yes

c. $\frac{1}{8}$

51. Associative property of addition

53. Commutative property of multiplication

55. Identity property of multiplication

57. $y = 2x - 3$

59. $y = -\frac{2}{3}x - 4$

61. $y = \frac{1}{2}x + \frac{9}{2}$

63. 1, 3.5