Answers

Lesson 1.4

1. $k = -5; y = -5x$ **2.** $k = \frac{7}{3}; y = \frac{7}{3}x$

3. $k = -\frac{4}{3}; y = -\frac{4}{3}x$ **4.** $k = \frac{1}{4}; y = \frac{1}{4}x$

5. $k = \frac{2}{7}; y = \frac{2}{7}x$ **6.** $k = \frac{5}{6}; y = \frac{5}{6}x$

7. $k = 2; y = 2x$ **8.** $k = -3; y = -3x$

9. $x = 3$ **10.** $x = 4$ **11.** $y = \frac{9}{2}$

12. $x = 10$ **13.** $z = \frac{5}{2}$ **14.** $y = -\frac{5}{4}$

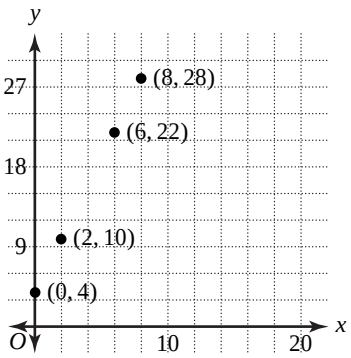
15. $x = -1$ **16.** $z = \frac{1}{3}$ **17.** yes; $y = 3x$

18. no; there is no constant, k, such that $y = kx$

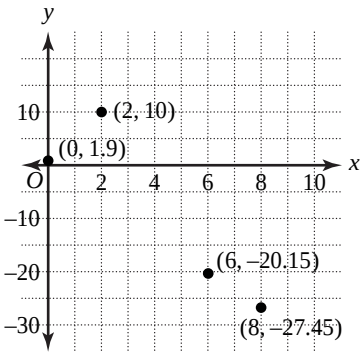
19. yes; $y = 2x$

Lesson 1.5

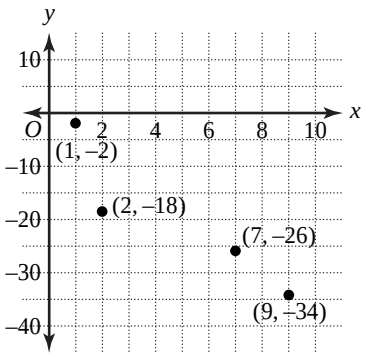
1. $y = 3x + 4$; positive



2. $y \approx -4.44x + 8.85$; negative



3. $y \approx -3.26x - 4.5$; negative



4. $y = 0.01x + 0.24$ **5.** $r \approx 0.96$ **6.** 0.360

Lesson 1.6

1. $x = 2$ **2.** $x = 5$ **3.** $x = 9$ **4.** $x = 6$

5. $x = 8$ **6.** $x = \frac{7}{8}$ **7.** $x = -2$

8. $x = -3$ **9.** $x = \frac{1}{2}$ **10.** $x = 2$

11. $x = 16$ **12.** $x = -21$ **13.** $x = -\frac{1}{3}$

14. $x = 7$ **15.** $x = -\frac{1}{3}$ **16.** $x = -\frac{6}{5}$

17. $x = 18$ **18.** $x = -\frac{5}{22}$ **19.** $x = -4$

20. $x = -6$ **21.** $x = -\frac{6}{7}$ **22.** $x = \frac{1}{2}$

23. $W = \frac{V}{LD}$ **24.** $r = \frac{C}{2\pi}$ **25.** $P_1 = \frac{V_2 P_2}{V_1}$

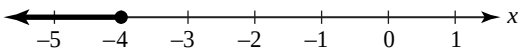
26. $q_p = \frac{q}{D \times Q}$ **27.** $a = \frac{T_0 - T}{z - z_0}$

28. $h = \frac{A}{a + b}$

Lesson 1.7

1. $x \geq -3$ **2.** $x > 2$ **3.** $x \leq 2$

4. $x \leq -4$



5. $x \leq 1$