Chapter 4

4.1 **Plot the point in a coordinate plane.** *Describe* **the location of the point.**

1. $K(-4, -2)$ **2.** $L(5, 0)$ **3.** $M(3, -1)$ **4.** $N(-2, 2)$

5. $P(0, 4)$ **6.** $Q(-3.5, 5)$ **7.** $R(2.5, 6)$ **8.** $S(-1, -1.5)$

4.1 **Graph the function with the given domain. Then identify the range of the function.**

9. $y = -2x + 2$; domain: $-2, -1, 0, 1, 2$ **10.** $y = \frac{1}{2}x - 3$; domain: $-4, -2, 0, 2, 4$

4.2 **Graph the equation.**

11. $y - x = 3$ **12.** $y + 3x = 5$ **13.** $y - 4x = 10$ **14.** $y = 4$

15. $2x - y = 0$ **16.** $3x + y = 0$ **17.** $3x + 2y = -6$ **18.** $x = 0.5$

4.3 **Find the *x*-intercept and the *y*-intercept of the graph of the equation.**

19. $2x - y = 12$ **20.** $-5x - 2y = 20$ **21.** $-4x + 1.5y = 4$ **22.** $y = \frac{3}{4}x - 15$

4.3 **Graph the equation. Label the points where the line crosses the axes.**

23. $y = 3x - 6$ **24.** $4x + 5y = -20$ **25.** $\frac{2}{3}x + \frac{1}{2}y = 10$ **26.** $0.3x - y = 6$

4.4 **Find the slope of the line that passes through the points.**

27. $(4, 2)$ and $(6, 8)$ **28.** $(-3, 0)$ and $(2, -5)$ **29.** $(-5, 3)$ and $(-8, 10)$

30. $(9, 4)$ and $(0, 1)$ **31.** $(-2, 5)$ and $(-2, 10)$ **32.** $(6, -4)$ and $(4, -4)$

4.5 **Identify the slope and *y*-intercept of the line with the given equation.**

33. $y = 7x + 8$ **34.** $y = 10x - 6$ **35.** $y = 3 - 4x$ **36.** $y = x$

4.5 **Rewrite the equation in slope-intercept form. Then identify the slope and the *y*-intercept of the line.**

37. $2x + y = 8$ **38.** $10x - y = 20$ **39.** $5x + 2y = 10$ **40.** $-2x - y = 3$

4.5 **Graph the equation.**

41. $y = 2x - 4$ **42.** $y = -\frac{3}{4}x + 1$ **43.** $2x + y = 1$ **44.** $-2x + 3y = -9$

4.6 **Graph the direct variation equation.**

45. $y = 2x$ **46.** $y = -x$ **47.** $y = 4x$ **48.** $5x + y = 0$

49. $x - 2y = 0$ **50.** $3x + y = 0$ **51.** $2y = 9x$ **52.** $y - \frac{5}{4}x = 0$

4.7 **Find the value of *x* so that the function has the given value.**

53. $f(x) = -7x - 3$; -17 **54.** $g(x) = 5x - 4$; 12 **55.** $t(x) = 3x + 1$; -11

4.7 **Graph the function. Compare the graph with the graph of $f(x) = x$.**

56. $m(x) = x - 2$ **57.** $t(x) = x + 4$ **58.** $z(x) = 6x$ **59.** $h(x) = -2x$