

Lesson 11.1.5

11-53. a. 4 b. 3 c. 1 d. 2 e. 6 f. 5

11-54. (1) D: $-\infty < x < \infty$ (3) D: all x -values except $x = 0$ (4) D: $x > 0$
 R: $y \geq 0$; (5) D: $-\infty < x < \infty$ R: $y > 0$; (6) D: all x -values except $x = 0$

11-55. They are the same shade, but one is shifted the other.

11-56. $\frac{3x-4}{2x+1}$; $x \neq -0.5$ or -5 11-57. a. 8 b. 1 c. -2 d. no solution

11-58. $y = 5x - 22$ 11-59. a. 9 b. $\frac{14}{3}$ c. $\frac{13}{2} = 2.6$ d. 7

11-60. a. $15x^3y$ b. y c. x^5 d. $\frac{8}{x}$ 11-61. a. 2 b. 53

11-62. a. $-4 \leq x \leq 4$ b. $0 < x < 3$ c. $1 < x \leq 6$ d. $5 \leq x < 4$

11-63. Graphs (a) and (b) have a common range of $-\infty < y < \infty$.

11-64. a. $x = \pm 4$ b. $(-5, -17)$ c. $x = 4$ or $x = -2$
 d. $x = \frac{-1 \pm \sqrt{57}}{4}$; 1.64 or 2.14

11-65. slope $-\frac{1}{2}$



Lesson 11.1.6

11-68. a. $y = \sqrt{x-3} - 2$ b. $y = |x-5| + 4$

11-69. a. D: all real numbers except negative numbers; R: the same as D
 b. D: $x \geq -2$; R: $y \geq -3$ c. The domain and range are each shifted along with the graph.

11-70. a. 3 b. 1 c. 2

11-71. x: (0, 0) and (4, 0); y: (0, 0); vertex: (2, 4)

11-72. a. 12 b. 59 c. 7 d. 9 e. -15 f. -5

11-73. All equations are equivalent and have the same solutions.

11-74. a. $12x^2 + 5x - 2$ b. $3m^2 - m - 2$ c. $5k^2 - 26k - 24$

11-75. a. $x = -1$ b. $-10 < x < 10$ c. $x < 0$ d. $x < -5$; $x > 1$