

Appendix B

1. $|x - a| \leq 3$

2. $x = 18$

3. $x = \frac{5 \pm \sqrt{33}}{4}$

4. $-\frac{1}{7} < x \leq \frac{20}{7}$

5. $x \leq -4$ or $x \geq 1$

6. $(-5, 11)$

7. 88

Chapter 1

1. 5

2. $\left(\frac{3}{2}, 5\right)$

3. $\left(\frac{1}{2}, 0\right)$

4. y -axis

5. $(x - 3)^2 + (y + 1)^2 = 6$

6. $\left(\frac{1}{2}, 0\right)$ and $(0, -1)$

7. a & b

8. $3x - 5$

9. Domain: $(-\infty, \infty)$; Range: $[0, \infty)$

10. a, c, d

11. Shift right 2; up 6 (see calculator)

12. $(-\infty, 0)$; $(1, \infty)$

13. $2x - y + 7 = 0$ or $y = 2x + 7$

14. 2

Chapter 2

1. Up to the left; down to the right

2. $-4, -3, 0$

3. $2x^3 - 2x^2 + x + 3 - \frac{4}{3x+1}$

4. $x^3 + 2x^2 + 6x + 11 + \frac{23}{x-2}$

5. $\pm\frac{1}{3}, \pm 1, \pm\frac{5}{3}, \pm 5$

6. Lower Bound

7. $(x+2)(x-2)(x+2i)(x-2i)$

8. $-15 + 4i$

9. $-22i$
10. $f(x) = -(x+1)^2 + 2$
11. $x = 0$ and $y = x - 2$
12. See calculator

Chapter 3

1. Shift down 5 units
2. \$2512.76
3. 194.3059
4. -1.6055
5. 1.9206
6. $\log_5 \sqrt[5]{\frac{(x+1)^3 (x-1)^2}{7}}$
7. $\log_3 243 = 5$
8. 214.2192
9. a) 1 b) $\log_b m - \log_b n$ c) x
10. $(-\infty, -1); (1, \infty)$
11. 847
12. 2
13. -4.0977
14. 1.7411

