Chapter 2 Content Quiz Practice Selected Answers

C2CQ1 Practice

9. $f(-5) = -43$

10. $f(4x) = -48x^2 - 20x + 7$

11. $f(x + 6) = -3x^2 - 41x - 131$

12. $f(x + h) = -3x^2 - 6xh - 3h^2 - 5x - 5h + 7$

13. $(-\infty, \infty)$

14. $[-1,\infty)$

15. $(-\infty, 0)(0, 5)(5, \infty)$

16. $6x + 3h - 2, h \neq 0$

C2CQ2 Practice

1. $f(-6) = 1$

2. $f(5) = -2$

3. $[-6, 5]$

4. $[-2, 1]$

5. (-2.5, 0) (2, 0)

6. (0, -1)

7. $[-6, -2.5)$

8. $x = 5$

9. once

10. once

11. yes

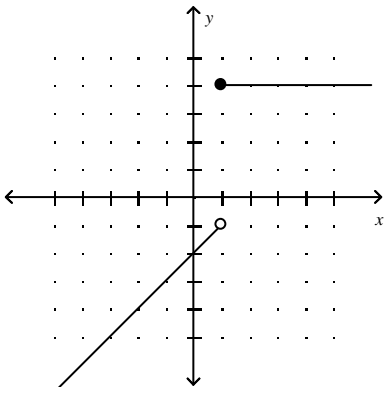
12. (2, -4)

C2CQ3 Practice

1. (-4, 0) (6, 0)
2. (0, 2)
3. $[-5, 6]$
4. $[-3, 6]$
5. neither
6. y = -3
7. at x = -5
8. f(-2) = 6
9. constant: $(-\infty, -3)\ (0, 3)$
   increasing: $(-3, 0)$
   decreasing: $(3, \infty)$
10. local minimum at y ≈ -9.82 at x ≈ -1.90
    local maximum at y ≈ 1.61 at x ≈ 2.34

    increasing: $(-1.90, 2.34)$
    decreasing: $(-\infty, -1.90)\ (2.34, \infty)$
11. 4 watches

C2CQ4 Practice

1. f(7) = 28
2. f(-4) = 32
3. f(-2) = -13
4. 

5. $f(x) = \begin{cases} \frac{-3}{2}x - 6 & \text{if } -6 \le x < -2 \\ x + 1 & \text{if } -2 \le x \le 3 \\ \frac{2}{3}x & \text{if } x > 3 \end{cases}$

C2CQ5 Practice

1. f(x) = $\sqrt{x+2}+3$

2. f(x) = $-(x+2)^3$

3. f(x) = $-(x-2)^2-7$

4. f(x) = $|x+5|$

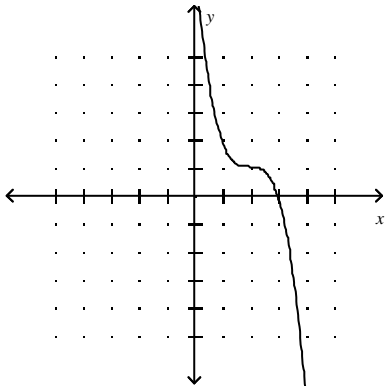
5. f(x) = $|x+2|-3$

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

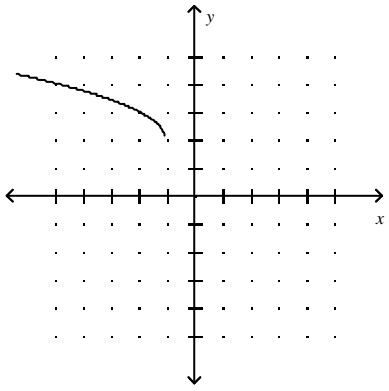
7. f(x) = $-(x+4)^3$

8. f(x) = $\sqrt{x+4}$

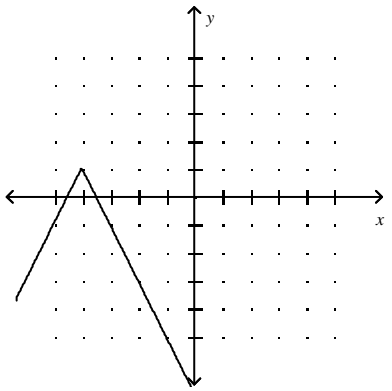
9.



10.



11.



12.