U1 Quiz Review: Sections 1.6 – 1.7B — Answer Key

Name: _____ HR: _____

Skills: Teacher copy of answers to the review sheet.

1. $m=\frac{-1-7}{2-(-2)}=-2,\ f(x)=-2x+3$ **2.** (a) 4 (b) −3 (c) 2 **3.** (a) [[1.5]] = 1 (b) [[−1.5]] = −2

4. squaring (quadratic); D (−∞, ∞), R [0, ∞) **5.** greatest integer (step); D (−∞, ∞), R all integers

6. identity (linear); D and R (−∞, ∞) **7.** constant, f(x) = 2; D (−∞, ∞), R {2}

8. $y=2x+1$ for $x\le 0$ (CLOSED dot at (0, 1)); $y=-x+3$ for $x>0$ (OPEN dot at (0, 3))

9. (a) −3 (b) 1 (c) 1 **10.** W(30) = 15(30) = \$450; W(46) = 22.5(6) + 600 = \$735

11. h = −4, k = −3: left 4, down 3 **12.** h = 2, reflect in x-axis: right 2, flip over x-axis

13. k = 5, reflect in y-axis: flip over y-axis, up 5 **14.** k = −6: down 6

15. $g(x)=(x-3)^2+2$ **16.** $g(x)=-|x+1|$

17. h = −2, k = −1: $g(x)=\sqrt{x+2}-1$ **18.** h = 1, k = 2: $g(x)=(x-1)^3+2$

19. Parent x^2, h = 2, k = −3, no reflection. Vertex (2, −3); also (1, −2), (3, −2), (0, 1), (4, 1).

20. a = 3: vertical stretch by 3 **21.** $b=\frac{1}{2}$: horizontal stretch by 2

22. a = 2, h = −3, k = −1: left 3, vertical stretch by 2, down 1

23. a = −1, b = 4, k = 1: horizontal shrink by $\frac{1}{4}$, reflect in x-axis, up 1

24. (2, 1) **25.** (1, 6) **26.** (1, −6) **27.** (6, 19)

28. $2=a(0+1)^2+4\rightarrow a=-2$: $g(x)=-2(x+1)^2+4$

29. $-1=a|-2-2)-3\rightarrow a=\frac{1}{2}$: $g(x)=\frac{1}{2}|x-2)-3$

30. a = −2, h = 1, k = 3. (−1, 1) → (0, 1); (0, 0) → (1, 3) vertex; (1, 1) → (2, 1). Opens down.