Name _____ Date _____ Pd __

9.3 WS from the WB

In Exercises 1–18, solve the equation using square roots.

1. $x^2 + 49 = 0$

2. $x^2 - 25 = 0$

3. $x^2 + 6 = 6$

4. $2x^2 + 84 = 0$

5. $2x^2 - 72 = 0$

6. $-x^2 - 12 = -12$

7. $8x^2 - 49 = 151$

8. $-3x^2 + 16 = -11$

9. $81x^2 - 49 = -24$

10. $16x^2 - 1 = 0$

11. $25x^2 + 9 = 0$

12. $16 - 2x^2 = 16$

13. $(x - 4)^2 = 0$

14. $(x + 2)^2 = 196$

15. $(2x + 7)^2 = 49$

16. $16(x - 3)^2 = 25$ **17.** $81(3x + 1)^2 = 49$ **18.** $(4x - 3)^2 = 64$

In Exercises 19–24, solve the equation using square roots. Round your solutions to the nearest hundredth.

19. $x^2 + 6 = 8$ **20.** $x^2 - 12 = 3$ **21.** $x^2 + 25 = 49$

22. $3x^2 - 4 = 14$ **23.** $6x^2 + 5 = 20$ **24.** $20 - 4x^2 = 18$

25. A ball is dropped from a window at a height of 81 feet. The function $h = -16x^2 + 81$ represents the height (in feet) of the ball after x seconds. How long does it take for the ball to hit the ground?

26. The volume of a cone with height h and radius r is given by the formula $V = \frac{1}{3}\pi r^2 h$. Solve the formula for r. Then find the radius of a cone with volume 27π cubic inches and height 4 inches.