Name_____ Class _____ Date _____

6-8 Practice

Form G

Graphing Radical Functions

Graph each function.

1. $y = \sqrt{x+3}$

3. $y = \sqrt{x+5}$

5. $y = -2\sqrt{x-2}$

Solve each square root equation by graphing. Round the answer to the nearest hundredth, if necessary. If there is no solution, explain why.

7. $\sqrt{x+6} = 9$

9. $\sqrt{3x-5} = \sqrt{1-x}$

Graph each function.

11. $y = -\sqrt[3]{x} + 2$

13. $y = \sqrt[3]{x+3} - 1$

Rewrite each function to make it easy to graph using transformations of its parent function. Describe the graph.

15. $y = -\sqrt{4x + 20}$

17. $y = -\sqrt{64x + 192}$

19. $y = \sqrt{25x + 75} - 1$

21. $y = 5 - \sqrt{4x + 2}$

23. To find the radius r of a sphere of volume V, use the equation $r = \sqrt[3]{\frac{3V}{4\pi}}$.

a. Graph the equation.

b. A balloon used for advertising special events has a volume of 225 ft^3. What is the radius of the balloon?

25. You can use the equation $t = \frac{1}{4}\sqrt{d}$ to find the time t, in seconds, it takes an object to fall d feet after being dropped.

a. Graph the equation.

b. How long does it take the object to fall 400 feet?