Name _____ Class _____ Date _____

10-2 Practice

Graphing Radical Functions

Graph: Use (a, h, & k) to write the domain and range. (*Include a table of values)*

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

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

3. $y = \sqrt{x} - 7$

4. $y = 4\sqrt{x}$

5. $y = -2\sqrt{x + 1}$

6. $y = 5\sqrt{x} - 4$

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

7. $\sqrt{x + 2} = 7$

8. $\sqrt{4x + 1} = 5$

9. $3\sqrt{3 - x} = 10$

10. A periscope on a submarine is at a height *h*, in feet, above the surface of the water. The greatest distance *d*, in miles, that can be seen from the periscope on a clear day is given by $d = \sqrt{\frac{3h}{2}}$.

a. If a ship is 3 miles from the submarine, at what height above the water would the submarine have to raise its periscope in order to see the ship?

b. If a ship is 1.5 miles from the submarine, to what height would it have to be raised?