Name ______________________________ Date ______________

LESSON 10.4

Practice A

For use with pages 652–658

Evaluate the expression.

1. $\sqrt{49}$ **2.** $\sqrt{225}$ **3.** $\sqrt{100}$

Isolate the variable in the equation.

4. $9x^2 - 18 = 0$ **5.** $4x^2 - 12 = 0$ **6.** $10x^2 - 40 = 0$

Solve the equation.

7. $x^2 = 36$ **8.** $x^2 - 9 = 0$ **9.** $5x^2 = 20$

10. $5x^2 - 45 = 0$ **11.** $2x^2 - 18 = 0$ **12.** $3x^2 - 12x = 0$

Evaluate the expression. Round your answer to the nearest hundredth.

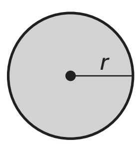
13. $\sqrt{5}$ **14.** $\sqrt{10}$ **15.** $\sqrt{12}$

Solve the equation. Round the solutions to the nearest hundredth.

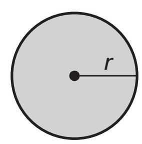
16. $x^2 = 8$ **17.** $x^2 - 3 = 0$ **18.** $7x^2 - 14 = 0$

Use the given area *A* of the circle to find the radius *r* or the diameter *d* of the circle. Round the answer to the nearest hundredth, if necessary.

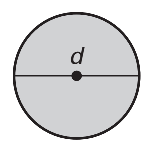
19. $A = 25\pi \text{ m}^2$



20. $A = 121\pi \text{ in.}^2$



21. $A = 23\pi \text{ cm}^2$



22. Boat Racing The maximum speed s (in knots or nautical miles per hour) that some kinds of boats can travel can be modeled by $s^2 = \frac{16}{9}x$ where x is the length of the water line in feet. Find the maximum speed of a sailboat with a 20-foot water line. Round your answer to the nearest hundredth.

23. Stockpile You can find the radius r (in inches) of a cylindrical air compressor receiver tank by using the formula $c = \frac{1}{73.53}hr^2$ where h is the height of the tank (in inches) and c is the capacity of the tank (in gallons). Find the tank radius of each tank in the table. Round your answers to the nearest inch.

Tank	Height (in.)	Radius (in.)	Capacity (in.^{3})
A	24	?	12
B	36	?	24
C	48	?	65