Name _____   Date _____

Practice C

For use with the lesson "Find Square Roots and Compare Real Numbers"

Evaluate the expression.

1. $\pm\sqrt{900}$ **2.** $-\sqrt{3600}$ **3.** $\sqrt{196}$

4. $\sqrt{676}$ **5.** $\pm\sqrt{324}$ **6.** $-\sqrt{484}$

Approximate the square root to the nearest integer.

7. $\sqrt{43}$ **8.** $-\sqrt{215}$ **9.** $\sqrt{380}$

10. $-\sqrt{150}$ **11.** $\sqrt{300}$ **12.** $-\sqrt{425}$

Tell whether each number in the list is a real number, a rational number, an irrational number, an integer, or a whole number. Then order the numbers from least to greatest.

13. $-\sqrt{169},\ 7.25,\ \sqrt{6},\ -\dfrac{15}{2}$ **14.** $-\sqrt{19},\ -4.4,\ \sqrt{\dfrac{1}{9}},\ 0.7$ **15.** $-\sqrt{\dfrac{1}{4}},\ 1.15,\ -0.3,\ \dfrac{7}{4}$

Evaluate the expression for the given value of x.

16. $3\sqrt{x} - 2$ when $x = 9$ **17.** $15 - 7\sqrt{x}$ when $x = 16$
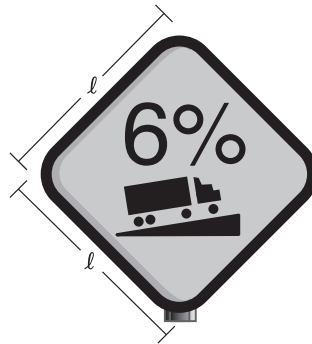
18. $\dfrac{\sqrt{x}}{x}$ when $x = 36$ **19.** $\dfrac{\sqrt{x}}{8} - 19$ when $x = 64$

20. Mirrors You are buying a mirror for your room. The store you go to has square mirrors with areas of 2.25 square feet and 6.25 square feet, respectively. Find the side length of each size of mirror.

21. Road Sign The U.S. Department of Transportation determines the sizes of the traffic control signs that you see along the roadways. One of the sizes for a square diamond-shaped sign has an area of 2304 square inches.

   a. Find the side length of the sign.

   b. How many signs can be made from a piece of sheet metal that is 4 feet long and 8 feet wide?

22. Port Hole Window One of the port hole windows on a ship has an area of 200.96 square inches. Another port hole window has an area of 615.44 square inches. The diameter of the windows can be found using the expression $2\sqrt{\dfrac{A}{3.14}}$ where A is the area of the window. Find the diameters of the windows.