**Chapter 10 Practice Test** SCORE \_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Write the letter for the correct answer in the blank at the right of each question.***

 **1.** How does the graph of *y* = $\sqrt{x}$ + 2 compare to the parent graph?

 **2.** Which expression has a domain of {*x* | *x* ≥ –1}?

 **F** *y* = $\sqrt{x+1}$ **G** *y* = $\sqrt{x-1}$ **H** *y* = $\sqrt{x}$ + 1 **J** *y* = $\sqrt{x}$ – 1

**For Questions 3–7, simplify each expression.**

 **3.** $\sqrt{90}$

 **4.** $\frac{3}{5 - \sqrt{2}}$

 **5.** 6$\sqrt{5}$ – 2$\sqrt{5}$

 **6.** 3$\sqrt{12}$ + $\sqrt{27}$ – 2$\sqrt{20}$

 **7.** $\sqrt{2}$ ($\sqrt{6}$ + 3$\sqrt{2}$ )

 **8.** Solve $\sqrt{2x-5}$ = 3.

 **9.** Solve $\sqrt{2x+8}$ = *x*.

**10.** Find the length of the hypotenuse of a right triangle if *a* = 3 and *b* = 4.

**11.** Determine which side measures form a Pythagorean triple.

 **A** 4, 5, 6 **B** 3, 4, 5 **C** 5, 11, 12 **D** 4, 8, 12

 **1.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **2.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **3.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **4.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **5.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **6.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **7.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **8.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **9.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**10.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**11.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chapter 10 Practice Test** *(continued)*

**12.** Determine which set of measures can be the lengths of the sides of a right triangle.

 **A** 2, 3, 5 **B** 4, 6, 7 **C** 10, 12, 13 **D** 1, $\sqrt{3}$ , 2

**13.** What is the equation of the graph?

 **F** *y* = $\sqrt{x+2}$ + 1 **H** *y* = $\sqrt{x+1}$ + 2

 **G** *y* = $\sqrt{x-2}$ + 1 **J** *y* = $\sqrt{x-1}$ + 2

**14.** Simplify 2$\sqrt{x}$ ⋅ 5$\sqrt{x}$ ⋅ 3$\sqrt{x}$ .

**15.** What is the length of a diagonal of a rectangle with a length of 8 meters and a width
of 6 meters?

**16.** Determine which side measures form a right triangle.

 **A** 10, 24, 28 **B** 13, 17, 21 **C** $\sqrt{3}$, $\sqrt{4}$, $\sqrt{5}$ **D** 5, 12, 13

**17 . SAILING** A 12-foot cable attached to the top of the mast of a sailboat is fastened to a point on the deck 4 feet from the base of the mast. What is the height of the mast?

**Bonus:** Find out when you take the test ☺

**12.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**13.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**14.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**15.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**16.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**17.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**B.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_