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3 **Chapter 3 Test, Form 2A** *(continued)*

12. Which set of numbers is ordered from least to greatest?

F. $\sqrt{11}, 4, 3\frac{1}{3}, \sqrt{17}$ **H.** $\sqrt{5}, 2\frac{3}{5}, \sqrt{7}, 3$

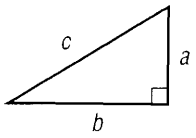
G. $6\frac{1}{9}, \sqrt{37}, 6\frac{1}{2}, \sqrt{29}$ **J.** $-10, \sqrt{16}, -3\frac{1}{4}, \sqrt{20}$ **12.** _____

For Questions 13 and 14, find the length of the missing side of each triangle. Round to the nearest tenth if necessary.

13. $a = 6$ meters, $b = 10$ meters

A. 4 m **C.** 2 m

B. 11.7 m **D.** 8 m



13. _____

14. $b = 15$ feet, $c = 20$ feet

F. 12 ft **G.** 25 ft **H.** 5 ft **J.** 13.2 ft **14.** _____

15. Which triangle with sides of the given lengths is a right triangle?

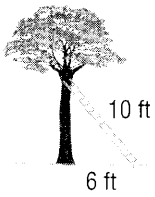
A. 6 yd, 8 yd, 10 yd **C.** 14 cm, 6 cm, 12 cm **15.** _____

B. 3 in., 4 in., 3 in. **D.** 21 ft, 13 ft, 35 ft

16. **FORESTRY** How far up the tree does the ladder reach?

F. 4 ft **H.** 8 ft

G. 2 ft **J.** 9.2 ft **16.** _____



17. **EXERCISE** Chenise walked 16 feet north and then 30 feet west. How far was Chenise from her starting point?

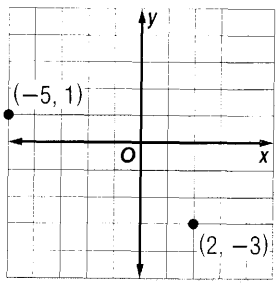
A. 32 ft **B.** 34 ft **C.** 35 ft **D.** 46 ft **17.** _____

Find the distance between each pair of points whose coordinates are given. Round to the nearest tenth if necessary.

18. the points in the graph at the right

F. 8.1 units **H.** 5.7 units

G. 1.7 units **J.** 3 units **18.** _____



19. (−1, −2), (6, 6)

A. 3.9 units **C.** 9.9 units

B. 10.6 units **D.** 8 units **19.** _____

20. (−3, 4), (7, −7)

F. 4.6 units **G.** 10 units **H.** 14.9 units **J.** 11 units **20.** _____

Bonus **PACKAGING** What is the length of the longest stick that will fit in a box that is 36 inches long, 27 inches wide, and 24 inches high? **B.** _____

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3 Chapter 3 Test, Form 2A

SCORE ____

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

For Questions 1–3, find each square root.

1. $\sqrt{225}$

   A. 22.5 **B.** 15 **C.** -15 **D.** 14 **1.** ____

2. $-\sqrt{\frac{144}{100}}$

   F. $-\frac{20}{12}$ **G.** $\frac{3}{5}$ **H.** $-\frac{6}{5}$ **J.** $\frac{5}{3}$ **2.** ____

3. $\sqrt{2.56}$

   A. 25.6 **B.** 1.6 **C.** 16 **D.** 0.256 **3.** ____

4. Solve $v^2 = 576$.

   F. 25 **G.** 24 or -24 **H.** 23 or -23 **J.** -24 **4.** ____

For Questions 5 and 6, estimate to the nearest whole number.

5. $\sqrt{131}$

   A. 12 **B.** 11 **C.** 10 **D.** 13 **5.** ____

6. $\sqrt{214}$

   F. 15 **G.** 16 **H.** 13 **J.** 14 **6.** ____

7. **SPORTS** A survey of 12 students showed that 7 liked football, 10 liked basketball, and 5 liked both. How many students liked just basketball?

   A. 12 **B.** 10 **C.** 5 **D.** 2 **7.** ____

8. **ALGEBRA** Estimate the solution of $b^2 = 52$ to the nearest integer.

   F. 26 or -26 **G.** 26 **H.** 7 **J.** 7 or -7 **8.** ____

9. To which set(s) of numbers does $0.\overline{7}$ belong?

   A. rational **C.** irrational

   B. integer, whole, rational **D.** rational, integer **9.** ____

10. To which set(s) of numbers does $-\frac{27}{3}$ belong?

    F. whole **H.** irrational **10.** ____

    G. integer, rational **J.** whole, integer, rational

11. Which is a true statement?

    A. $\sqrt{12} > 3\frac{1}{2}$ **B.** $2\frac{1}{5} > \sqrt{5}$ **C.** $\sqrt{\frac{9}{16}} < \frac{3}{4}$ **D.** $\sqrt{15} < 3.9$ **11.** ____

Assessment