

Unit 8: Pythagorean Theorem and Irrational Numbers

PRACTICE · SET 2

Name: _____ Date: _____

Solve each problem and write your exact answer on the line. Show your work where needed.

1. Evaluate $\sqrt{64}$.

Answer: _____

2. Evaluate the cube root of 27.

Answer: _____

3. Solve for the positive value of x : $x^2 = 81$. Give x .

Answer: _____

4. Solve for x : $x^3 = 125$. Give x .

Answer: _____

5. A right triangle has legs of length 6 and 8. Find the length of the hypotenuse.

Answer: _____

6. A right triangle has one leg of length 5 and hypotenuse of length 13. Find the length of the other leg.

Answer: _____

7. Is a triangle with side lengths 9, 12, and 15 a right triangle? Answer yes or no.

Answer: _____

8. Between which two consecutive whole numbers does $\sqrt{50}$ lie? Give the smaller whole number.

Answer: _____

9. Find the distance between the points (1, 2) and (4, 6) in the coordinate plane.

Answer: _____

10. A rectangular box has length 3, width 4, and height 12. Find the length of the interior diagonal from one corner to the opposite corner.

Answer: _____

11. Evaluate $\sqrt{49} + \sqrt{16}$.

Answer: _____

12. Classify $\sqrt{2}$: is it rational or irrational? Answer rational or irrational.

Answer: _____