

Name: \_\_\_\_\_



PRACTICE



TUTORIAL

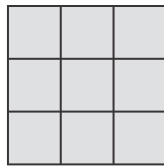
# 1-4 Additional Practice

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**Leveled Practice** In 1 and 2, evaluate the square root or cube root.

1. Relate the area of the square to the length of each side.



$$A = 9 \text{ cm}^2$$

Side length

 cm

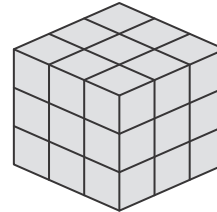
×

Side length

 cm

$$\sqrt{9} = \text{[ ]}$$

2. Relate the volume of the cube to the length of each edge.



$$V = 27 \text{ in.}^3$$

Edge length

 in.

×

Edge length

 in.

×

Edge length

 in.

$$\sqrt[3]{27} = \text{[ ]}$$

3. Ms. Lu is adding a new room to her house. The room will be a cube with volume 4,913 cubic feet. What is the length of the new room?

4. The volume of a box for earrings is 216 cubic centimeters. What is the length of one edge of the box?

5. The area of a square garage is 121 square feet. Will it fit a car that measures 13 feet long? Explain.

6. Nadia wants to enclose a square garden with fencing. It has an area of 141 square feet. To the nearest foot, how much fencing will she need? Explain.



7. Benjamin rents a storage unit that is shaped like a cube. There are 12 identical storage units in each row of the facility. If each storage unit has a volume of 125 cubic feet, what is the length of each row in the facility?

8. Would you classify the number 55 as a perfect square, as a perfect cube, both, or neither? Explain.

9. **Critique Reasoning** Clara says that if you square the number 4 and then divide the result by 2, you end up with 4. Is Clara correct? Explain. ©MP.3

10. **Higher Order Thinking** A fish tank at an aquarium has a volume of 1,568 cubic feet and a depth of 8 feet. If the base of the tank is square, what is the length of each side of the tank?

## Assessment Practice

11. Which statements are true? Select all that apply.

- ☐ 81 is a perfect square.
- ☐ 75 is a perfect cube.
- ☐ 729 is a perfect cube.
- ☐ 32 is neither a perfect square nor a perfect cube.
- ☐ 81 is both a perfect square and a perfect cube.

12. On a math test, Ana writes 9 as the solution to  $\sqrt[3]{27}$ .

### PART A

Find the correct solution.

### PART B

What error did Ana likely make on the test?

- Ⓐ Ana cubed 27.
- Ⓑ Ana divided 27 by 3.
- Ⓒ Ana multiplied 27 by 3.
- Ⓓ Ana cubed 3.

