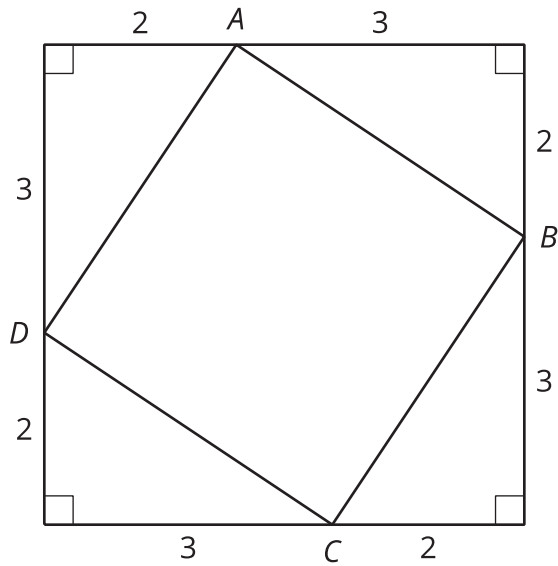# Unit 3 Lesson 2: Square Roots and Cube Roots

## 1 It's a Square (Warm up)

**Student Task Statement**

Find the area of square $ABCD$.

# 2 Squares and Their Side Lengths (Optional)

**Student Task Statement**

1. Complete the table with the area of each square in square units, and its exact side length in units.
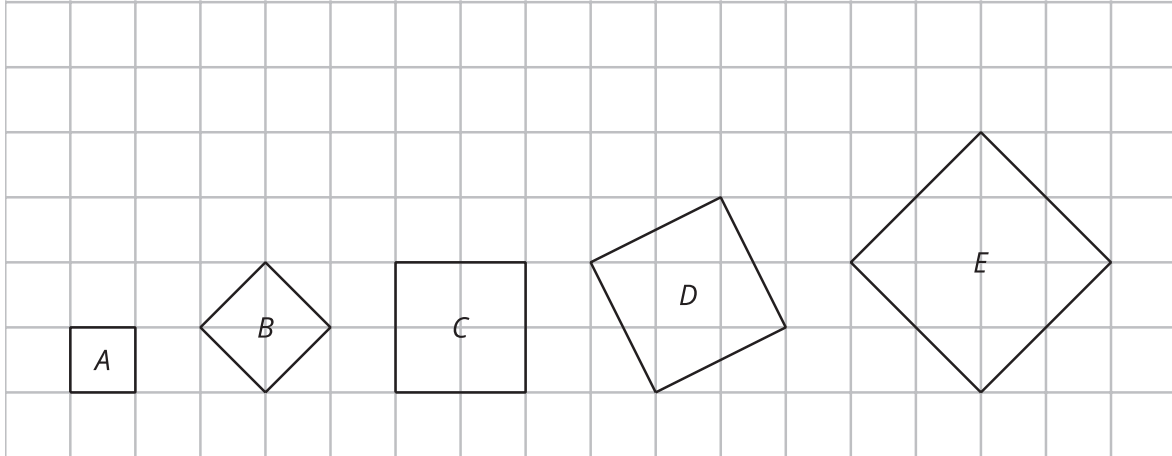


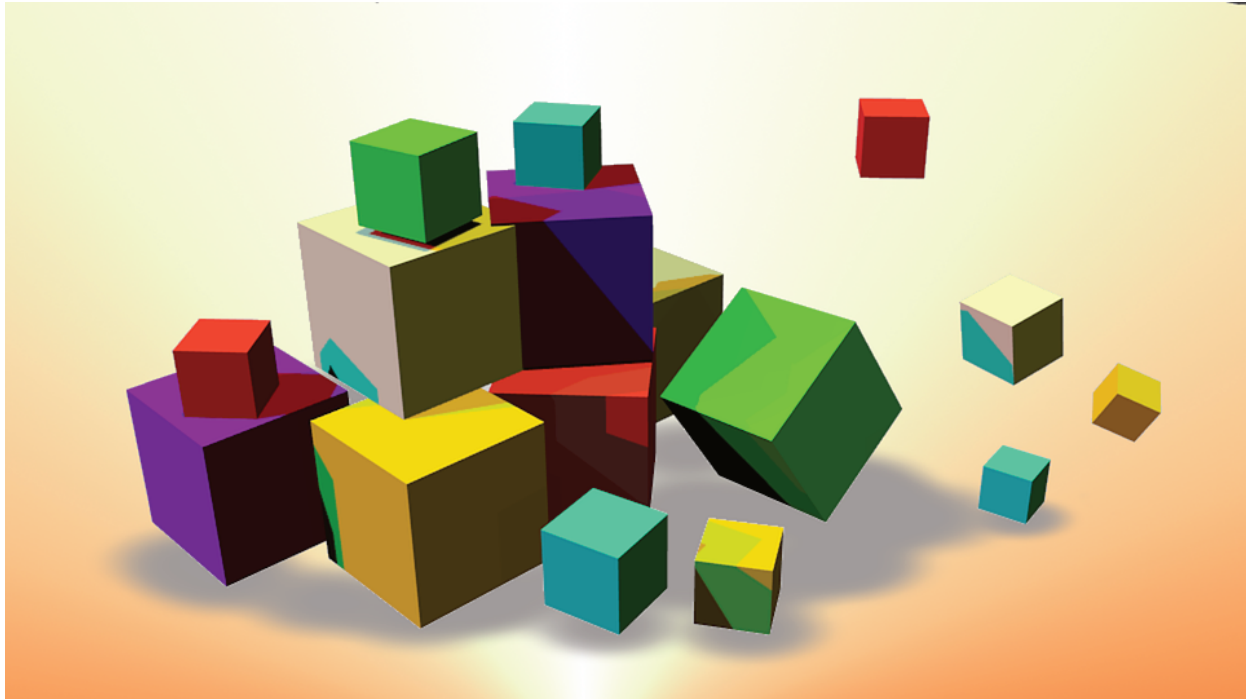| figure | A | B | C | D | E |
|---|---|---|---|---|---|
| area | | | | | |
| side length | | | | | |

2. This table includes areas in square units and side lengths in units of some more squares. Complete the table.

| area | 9 | | 23 | | 89 |
|---|---|---|---|---|---|
| side length | | 4 | | 6.4 | |

# 3 Cube It (Optional)

## Student Task Statement



1. A cube has edge length 3 units. What is the volume of the cube?

2. A cube has edge length 4 units. What is the volume of the cube?

3. A cube has volume 8 units. What is the edge length of the cube?

4. A cube has volume 7 units. What is the edge length of the cube?

5. $\sqrt[3]{1{,}200}$ is between 10 and 11 because $10^3 = 1{,}000$ and $11^3 = 1{,}331$. Determine the whole numbers that each of these cube roots lies between:

$\sqrt[3]{5}$    $\sqrt[3]{10}$    $\sqrt[3]{50}$    $\sqrt[3]{100}$    $\sqrt[3]{500}$

| between | 1 and 2 | 2 and 3 | 3 and 4 | 4 and 5 | 5 and 6 | 6 and 7 | 7 and 8 | 8 and 9 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |