## 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
 | *
 | *
 | *
 | *
 | *
 |

1. 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 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |   |   |   |   |   |   |   |



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