## Unit 8 Lesson 13: Cube Roots

### 1 True or False: Cubed (Warm up)

#### Student Task Statement

Decide if each statement is true or false.

$\left(\sqrt[3]{5}\right)^{3}=5$

$\left(\sqrt[3]{27}\right)^{3}=3$

$7=\left(\sqrt[3]{7}\right)^{3}$

$\left(\sqrt[3]{10}\right)^{3}=1,​000$

$\left(\sqrt[3]{64}\right)=2^{3}$

### 2 Cube Root Values

#### Student Task Statement

What two whole numbers does each cube root lie between? Be prepared to explain your reasoning.

1. $\sqrt[3]{5}$
2. $\sqrt[3]{23}$
3. $\sqrt[3]{81}$
4. $\sqrt[3]{999}$

### 3 Solutions on a Number Line

#### Student Task Statement

The numbers $x$, $y$, and $z$ are positive, and:

$x^{3}=5$

$y^{3}=27$

$z^{3}=700$



1. Plot $x$, $y$, and $z$ on the number line. Be prepared to share your reasoning with the class.
2. Plot $-\sqrt[3]{2}$ on the number line.



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