Unit 8 Lesson 12: Edge Lengths and Volumes

1 Ordering Squares and Cubes (Warm up)

Student Task Statement

Let a, b, c, d, e, and f be positive numbers.

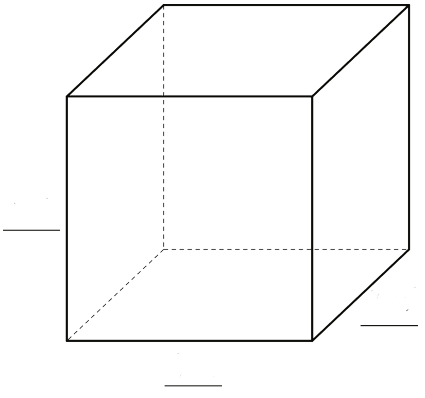
Given these equations, arrange a, b, c, d, e, and f from least to greatest. Explain your reasoning.

- $a^2 = 9$
- $b^3 = 8$
- $c^2 = 10$
- $d^3 = 9$
- $e^2 = 8$
- $f^3 = 7$

2 Name That Edge Length!

Student Task Statement

Fill in the missing values using the information provided:



sides	volume	volume equation
	$27\ \text{in}^3$	
$\sqrt[3]{5}$		
		$(\sqrt[3]{16})^3 = 16$

3 Card Sort: Rooted in the Number Line

Student Task Statement

Your teacher will give your group a set of cards. For each card with a letter and value, find the two other cards that match. One shows the location on a number line where the value exists, and the other shows an equation that the value satisfies. Be prepared to explain your reasoning.