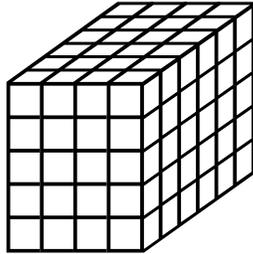




## Modeling Volume

Lesson Quiz

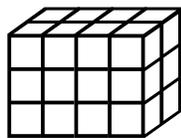
- 1 The model shown below is made of 1-inch cubes.



What is the best estimate of the volume of the model?

- A 15 cubic inches
- B 26 cubic inches
- C 100 cubic inches
- D 120 cubic inches

- 2 Antonio built a tower with centimeter cubes. The tower he built is shown below.



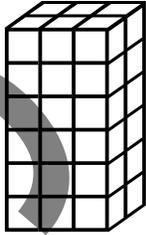
If Antonio builds a second tower 2 centimeters taller than the tower shown above, what will be the volume of the second tower?

- A 24 cubic centimeters
- B 36 cubic centimeters
- C 40 cubic centimeters
- D 48 cubic centimeters

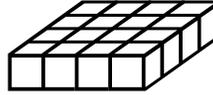


3 The models shown below are made of 1-centimeter cubes. Which of the models has a volume of 36 cubic centimeters?

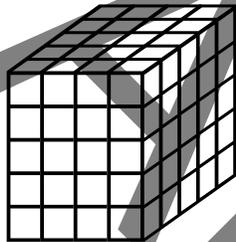
A



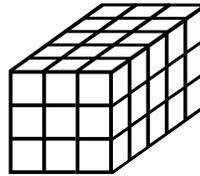
C



B



D



4 Roger had a large cube with a volume of 27 unit cubes. How many unit cubes made up each side of the large cube?

A 3

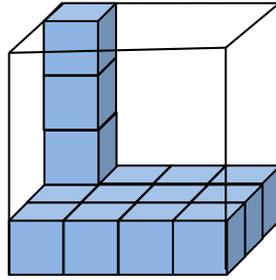
B 2

C 7

D 9



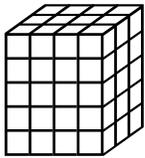
- 5 Latoya was filling the clear plastic box below with 1-inch cubes. After she filled the first layer with cubes, she made one stack of cubes in a corner.



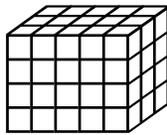
What is the best estimate of the total number of cubes that will be in the box when it is completely full?

- A 36
- B 48
- C 15
- D 30

- 6 Both models below are made of 1-centimeter cubes.



A



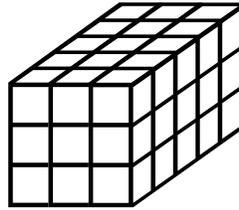
B

Which statement about these models is true?

- A The volume of model A is greater than the volume of Model B.
- B The volume of model A is 12 more than the volume of Model B.
- C Model A and Model B have the same volume.
- D Model A has more cubes in its first layer than Model B has in its first layer.



7 The model shown below is made of 1-inch cubes.

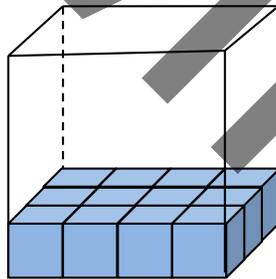


What is the volume of the model?

Record your answer and fill in the bubbles. Be sure to use the correct place value.

			.		
0	0	0		0	0
1	1	1		1	1
2	2	2		2	2
3	3	3		3	3
4	4	4		4	4
5	5	5		5	5
6	6	6		6	6
7	7	7		7	7
8	8	8		8	8
9	9	9		9	9

8 Owen is trying to determine the volume of the aquarium shown below. To begin to find the volume he covered the bottom of the aquarium with 1-foot cubes.



What should he do now to find the volume of the aquarium?

- A Count the number of cubes on the bottom of the aquarium. That will be the volume.
- B Multiply 3 cubes by 4 cubes. That will be the volume.
- C Since there are 12 cubes first layer, he should keep filling the aquarium to see how many layers of 12 cubes it takes to fill the aquarium.
- D Not here



- 9 Randall was given a rectangular prism made up of unit cubes. He counted the cubes on each side of the prism and determined its volume. Which of the following could represent the prism Randall was given?

**A**

Length of Base	Width of Base	Height	Volume
12 cubes	6 cubes	10 cubes	720 cubes

**B**

Length of Base	Width of Base	Height	Volume
5 cubes	12 cubes	13 cubes	156 cubes

**C**

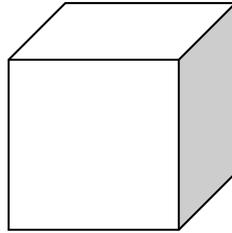
Length of Base	Width of Base	Height	Volume
17 cubes	15 cubes	8 cubes	800 cubes

**D**

Length of Base	Width of Base	Height	Volume
3	4	5	12 cubes



**10** A tissue box in the shape of a cube is shown below. The tissue box has a volume of 125 cubic inches. How many 1-inch cubes would it take to completely cover the bottom of the tissue box with one layer of cubes?



Record your answer and fill in the bubbles. Be sure to use the correct place value.

			.		
0	0	0		0	0
1	1	1		1	1
2	2	2		2	2
3	3	3		3	3
4	4	4		4	4
5	5	5		5	5
6	6	6		6	6
7	7	7		7	7
8	8	8		8	8
9	9	9		9	9

