



Additional Practice 11-1 Model Volume

Another Look!

Volume is the measure of space inside a solid figure.

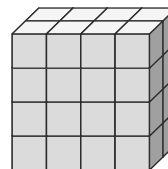
Volume is measured
in cubic units.



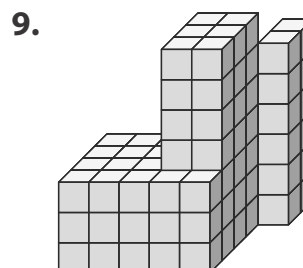
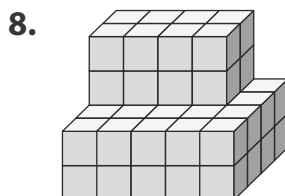
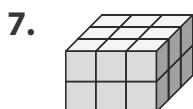
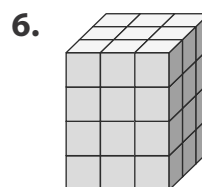
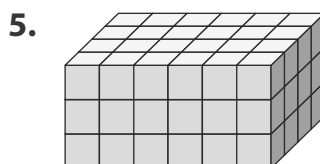
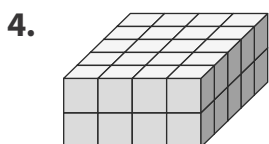
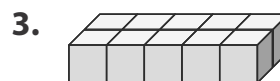
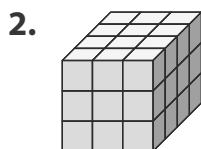
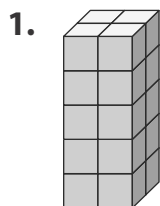
Find the volume of this solid by counting the number of unit cubes.

There are 8 cubes in the bottom layer and there are 4 layers. The total number of unit cubes is 32.

So, the volume is 32 cubic units.

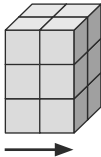
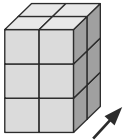
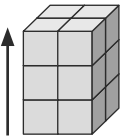


In 1–9, find the volume of each solid. Use unit cubes to help.



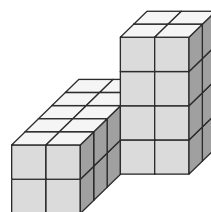
In 10–12, use the table.

- 10. Higher Order Thinking** Complete the table. Show some different ways that a rectangular prism can have a volume of 12 cubic units.
- 11. Look for Relationships** Look across each row of the table. What pattern do you see?
- 12.** Use the table to help. How many unit cubes are needed to make a model of a rectangular prism that is 4 units long, 3 units wide, and 2 units tall?

Number of Cubes Long 	Number of Cubes Wide 	Number of Cubes Tall 
1	1	12
2	2	3
2	3	
2		1
3	1	
3	2	
3		1
4	1	
6		1

- 13. Number Sense** A building is 509 feet tall. Each floor is about 14 feet tall. About how many floors does the building have?

- 14.** Velma and Bruce combined their model buildings to make one building. How can they change each building part to make the parts equal in volume? Explain your reasoning.



Assessment Practice

- 15.** Both of the models shown are made up of 1-inch cubes. Which statement about these models is true?

- (A) Model Q and Model R have the same volume.
- (B) Model R has a greater volume than Model Q.
- (C) The volume of Model Q is 7 cubic inches greater than the volume of Model R.
- (D) The volume of Model Q and Model R combined is 54 cubic inches.

