



Name _____

Date _____

1. Use your centimeter cubes to build the figures pictured below on centimeter grid paper. Find the total volume of each figure you built, and explain how you counted the cubic units. Be sure to include units.

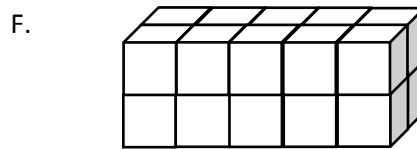
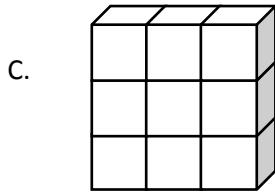
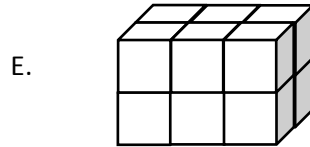
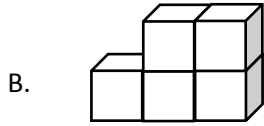
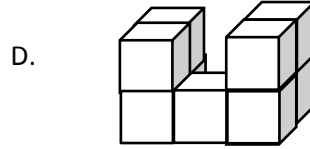
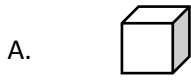
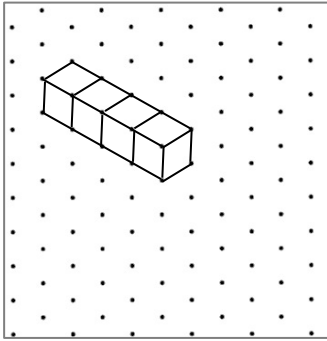


Figure	Volume	Explanation
A		
B		
C		
D		
E		
F		

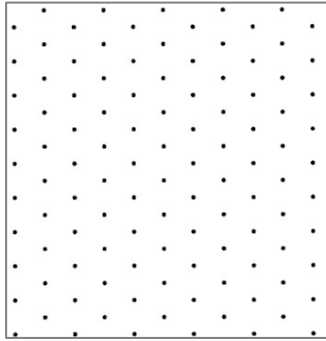


2. Build 2 different structures with the following volumes using your unit cubes. Then, draw one of the figures on the dot paper. One example has been drawn for you.

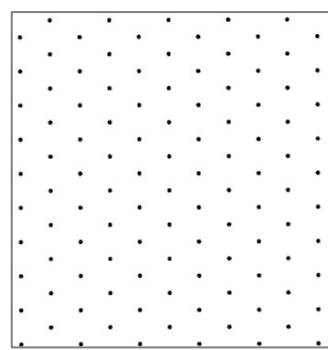
a. 4 cubic units



b. 7 cubic units

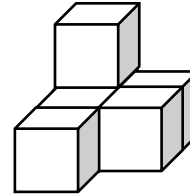


c. 8 cubic units



3. Joyce says that the figure below, made of 1 cm cubes, has a volume of 5 cubic centimeters.

a. Explain her mistake.



b. Imagine if Joyce wants to build a second layer of the same structure identical to the figure above. What would its volume be then? Explain how you know.

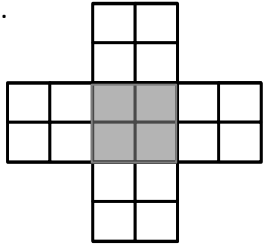


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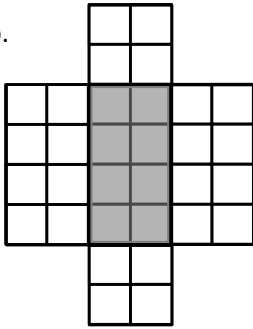
1. Shade the following figures on centimeter grid paper. Cut and fold each to make 3 open boxes, taping them so they hold their shapes. Pack each box with cubes. Write how many cubes fill the box.

a.



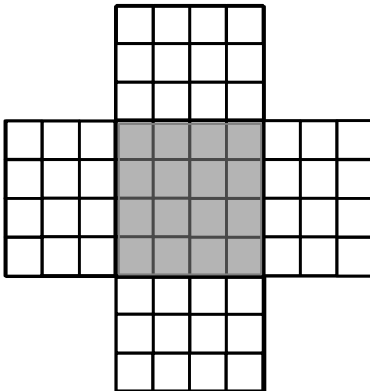
Number of cubes: _____

b.



Number of cubes: _____

c.



Number of cubes: _____

2. Predict how many centimeter cubes will fit in each box, and briefly explain your prediction. Use cubes to find the actual volume. (The figures are not drawn to scale.)

a.

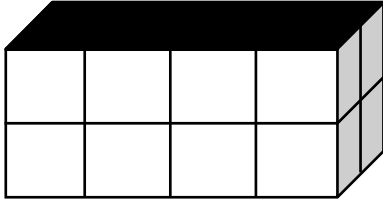


Prediction: _____

Actual: _____



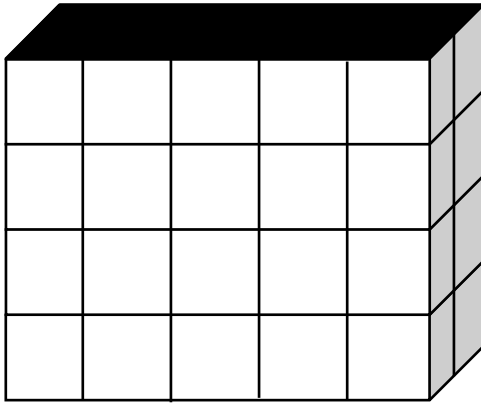
b.



Prediction: _____

Actual: _____

c.



Prediction: _____

Actual: _____

3. Cut out the net in the template, and fold it into a cube. Predict the number of 1-centimeter cubes that would be required to fill it. Test your prediction using as few cubes as possible. What did you discover?

Prediction: _____

What I discovered: