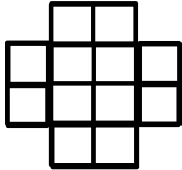


Name _____

Date _____

1. Make the following boxes on centimeter grid paper. Cut and fold each to make 3 open boxes, taping them so they hold their shapes. How many cubes would fill each box? Explain how you found the number.

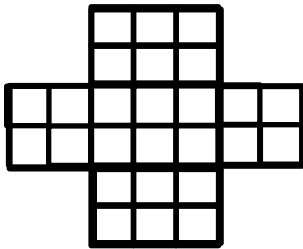
a.



Number of cubes: 4

1 layer with 4 cubes.

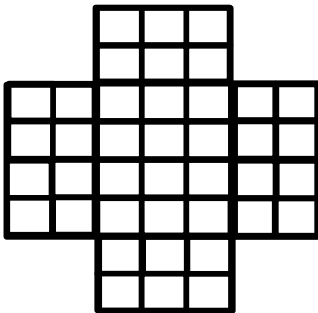
b.



Number of cubes: 12

2 layers with 6 cubes in each layer.

c.



Number of cubes: 24

2 layers with 12 cubes in each layer.

2. How many centimeter cubes would fit inside each box? Explain your answer using words and diagrams on the box. (The figures are not drawn to scale; the first box is 3 centimeters across and 2 centimeters wide.)

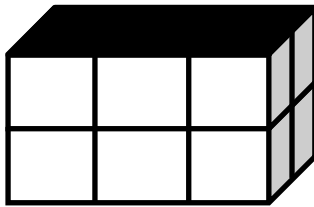
a.



Number of cubes: 6

Explanation: *There is one layer with 6 cubes in the layer.*

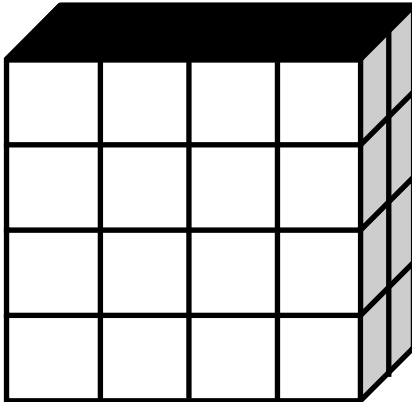
b.



Number of cubes: 12

Explanation: *There are 2 layers. Each layer has 6 cubes. $6 \times 2 = 12$*

c.



Number of cubes: 32

Explanation: *There are 4 layers. Each layer has 8 cubes. $8 \times 4 = 32$*

3. The box pattern below holds 24 1-cm cubes. Draw two different box patterns that would hold the same number of cubes.

