

4 CUBES

This is a 'Rubik's Cube®'.

It was invented by a Hungarian architect called Erno Rubik in 1974.

What is special about a cube?

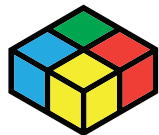


There are 9 blocks in each layer.
There are 3 layers. $9 + 9 + 9 = 27$
I worked out that the original Rubik's
Cube® has a volume of 27 blocks.

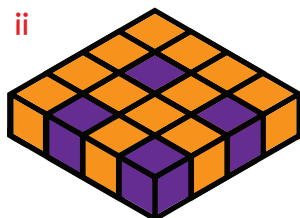
1 These pictures show the **bottom layer** of other cubes.

- a How many layers does each cube have?
b What would the volume of the finished cube be when it is finished?

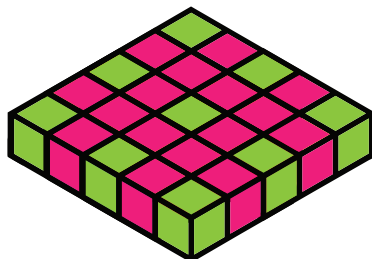
i



ii

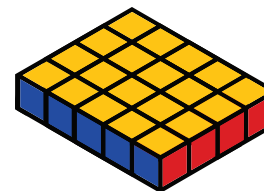


iii

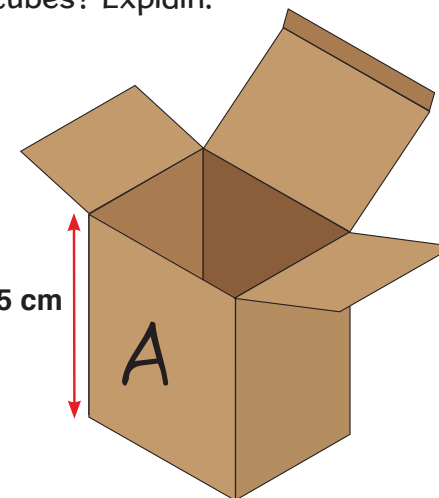


- 2 Some 1 cm cubes are going to be packed into rectangular boxes.
The first layer is all ready for each box.
Which box will hold the most cubes? Explain.

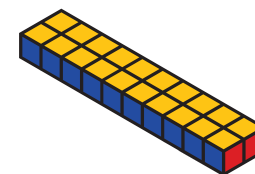
a



5 cm



b



5 cm

