

## Classe III

Dear Friends

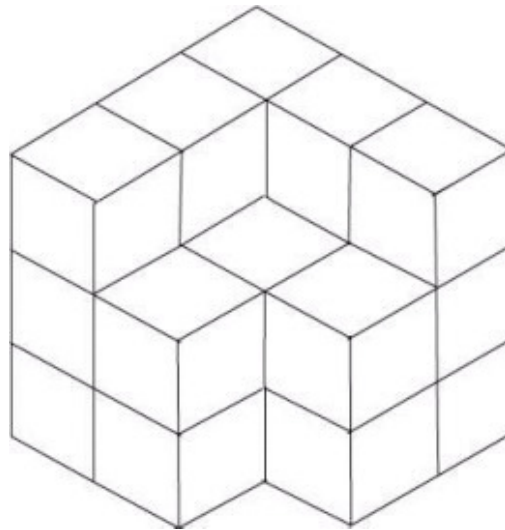
As predicted, I already need your help: are you ready?

This year, Madame Rasoa has decided to send to us, for all homework performed well, a cube of wood.

We are giving it our best try and have already collected a good sized mountain of identical cubes.

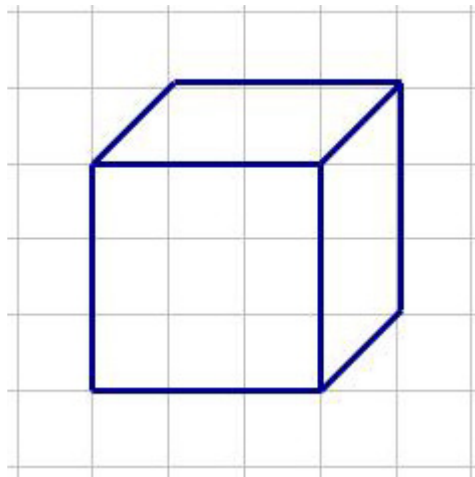
The teacher has not explained to us why she has taken this step, but we like these cubes a lot, because we can use them for many games.

Only yesterday, while we were playing during the long break, Madame Rasoa gave us a challenge: she had built this shape



and she asked us

- how many little cubes are missing to build a complete cube?
- if you would like to build a smaller cube, how many little cubes are left?
- do you know how to build another shape with all the cubes from my illustration?  
And do you know how to draw it? Keep in mind that a cube is drawn like this:



It must be a shape that is free standing and in which every cube has one face which is completely touching another cube.

- which of the two shapes between the finished big cube and the new shape that you have built occupies more space in your class? Why?

What do you think about it? Do you think you can do it?

It seems really difficult to me, but Madame Rasoa has given us two weeks to respond to the challenge. Can you give me a hand?

Thank you and greetings from your friend

Mavo