

CLASSE V

Dear friends

The time has come to ask for your valued advice for the experiment as we outlined to you in the previous letter. Are you ready?

This year a researcher from our Mathematic department has found some small wooden cubes, all the same size, in her daughter's schoolbag and she has invented a problem.

Some colleagues, after reading it, have objected maintaining that it wasn't suitable for children of your age.

What do you think? We have copied it below. Would you try to solve it and tell us who is right?

We are sure that you will accept this challenge with determination and enthusiasm. We await your answers but until then Happy problem solving!

Donatella

Dal Dipartimento di Matematica

Here's the problem.

You have a pile of 35 small cubes.

What is the biggest die you can build using as many small cubes as possible?

What is the smallest die that you can build using as few cubes as possible? Can you draw it?

Can you build two dice using all of the 35 small cubes? Can you draw at least one of them?

Which of the two dice that you have built occupies more space in your classroom?

If you built a snake with 27 small cubes, does it take-up more or less space in your classroom than the bigger dice? Why?