

In my opinion, the world of mathematics is very different from the world we live in. In this field, everything is exactly defined, there are usually no counterexamples to the rules, everything fits into a system. This regularity is one of the reasons I love maths. Another reason is because solving a maths problem is a bit like exploring. You use things that you already know to find out something that may be surprising, and every solution creates a bunch of new questions, that you can again discover. At the same time mathematics is exact, but has so many different ways to look at things.

My connection with mathematics starts from first grade, when I started to take part in competitions in different subjects, mostly in maths. I always had nice results and enjoyed competing, that's why I decided to apply to my current school, Fazekas Mihaly Grammar School where I experience a competitive environment, which for me is very motivating, because I think I can do my best if I am surrounded with people who have similar interests and also work hard for their goals. Since 7th grade I have been studying here, in the special maths class with 7-8 maths classes a week. Beyond that, I attend numerous extra classes. Although I am focusing on maths, I only had the best final grades from every subject each year since first grade. Besides school, I attend the camps of Lajos Pósa, where we build up maths from the first principles. For every camp we have to read through the notes of previous camps, as we need the previously proven theorems to be able to show more difficult ones. This way the camps are based on each other, we must be able to see the connection between problems that at first sight look very far from each other. Every time we solve a problem, we can ask questions that are connected to it, suggesting how we could move on with the result we have, what else we can find out related to that. This way we are also encouraged to apply critical thinking, not just do what we are told to do; we have the opportunity to find not just the solution, but the problem itself. In these camps I had the opportunity to learn about all the different fields of mathematics, and since the first camps my favourite became number theory. Because the basics are quite easy to understand but based on them you can get to much harder and complex theorems that have beautiful meanings.

I have been participating in many national and international competitions during the years. In 2020 I participated in the EGMO and won a silver medal, that's my achievement that I am the most proud of. In 2019 I received a second prize in national Kürschák József Mathematical Competition, where anyone from secondary school and even the first year of university compete together. In 2020 I participated in Hungary's main national competition (OKTV) and finished 12th place. This year I have also participated in the qualifiers for IMO, and I finished in 18th place. I have also participated in an international competition, the HOMC (Hanoi Open

Mathematical Competition) in 2019, where I won a bronze medal in the individual competition, and we won a second prize as a team. Besides participating in competitions, I have been holding maths extra classes for younger students, who wanted to get in my secondary school. It was an interesting experience, as usually I am the one learning new theorems and solving problems, not the one teaching. It needs totally different skills, as you have to be able to help them get to the solution, without solving the problem for them. It was fascinating to get an insight into the work of my teachers. I have also been helping in selecting problems for a competition our school organises.

I would love to study in the UK because the universities there have the competitive environment that I got used to in my school. They also offer an opportunity to expand my academic skills and learn more about the things I am passionate about through the many research opportunities.