

I have loved mathematics ever since I was a boy. Inspired by my father and elder brother I wanted to fully understand the world through facts and deductions. I am studying at Fazekas Mihaly Primary and Secondary School, which is one of the best high schools in Hungary and well-known for an advanced programme in mathematics. In the past five years I have been in this class with 7 to 8 maths courses a week where we learned advanced mathematics far exceeding the normal high school curriculum. For example, our teacher built up real analyses from an axiomatic level, which was one of my favourite topics. Apart from these, I also attended other lectures in mathematics taught in English where I acquired the necessary vocabulary to continue my studies in A. One of them had the sole purpose to prepare students for the International and Middle-European Mathematical Olympiad. Parallel to this I attended an extra class where I was able to study fascinating topics like hyperbolic geometry and topology.

I have participated in many mathematics competitions. My first major success was in 2013 at one of the top national competitions, where I achieved 5th place with an award for the most beautiful geometric solution. In the following years I improved my knowledge in geometry, number theory and combinatorics in order to compete with older students. In 2015 at the Kurschak Mathematics Competition, competition which even involved undergraduate students, I received honorable mention. Last year I also participated in the team competition of the National Olympiad in Italy. The first round was held in my school, after which a team of 7 members was selected based on the results. We won the finals in Italy placed first against three other national teams from England, Slovakia and Romania. That school term I also participated in a Hungarian National team competition, called Durer, in mathematics earning 7th at the finals. For practice I took part in a monthly competition called KoMaL, which is an advanced Mathematics and Physics problem set for secondary school students.

Alongside competitions, I have been to maths camps as well to study mathematics apart from school. Based on my competition results at the qualification rounds, this year I was invited to the Hungarian International Mathematical Olympiad preparation camp, despite not making it onto the team, I was there as a possible team member next year with 30 other students. In the camp we solved problems from the IMO Shortlist, and we even practiced a team competition, which my team managed to win. Here I learned a couple of new ways to approach a geometry problem, with for example projections and anharmonic ratios, as well as some useful lemmas like Sawayama's. In my school we also have a one week long maths camp, where only a few students of the final two grades can participate. Here everyone needs to collect several problems and form groups of four, to post their problems for all other teams in order to learn about some new techniques or theorems, such as Viète jumping and lifting the exponent lemma. Last year my team finished third and this year I am invited again.

In my free time I held a weekly class for 13 year old students voluntarily, who wanted to apply for Fazekas as well. Apart from mathematics I helped in the building of an ecg with Arduino, while getting involved with some programming in Processing. I take four physics classes a week and I finished in the top 60 of the Physics National Olympiad. In addition to science subjects I also study English and French in the latter I take 5 extra classes in addition to 3 per week and I plan to have a B2 level exam. I did swimming competitively for five years with a 5th place from the national championship at the age of 12 training 2 times a day. Now I only do it as a hobby three times per week.

UK is the best option for me to study undergraduate level mathematics and at the same time master a language.