

EGMO Report , 2013 Jessica Weitbrecht

EGMO is a maths competition for girls in secondary school all over Europe. Each country sends a team of four candidates who attempt to do well in two four and a half hour exams. The format is based on the International Maths Olympiad (IMO) (held annually) the most prestigious maths competition in the world. The EGMO was set up to encourage more girls to participate in maths as at the IMO (on average) only 10% of the contestants are girls, despite the fact the girls outperform boys on nearly all standardised maths tests.

This year's EGMO took place in Luxembourg and we travelled out there for a week . By "we" I mean our team leader Anca Mustata, a maths lecturer from UCC , our deputy Jonathan (who we spent a great deal of time trying to scare) and us four contestants – myself , Aoife from Dublin , Karen from Cork and Anna, Anca's daughter. At the departures in Cork Airport we realised that that despite being the Irish team, only two of us actually had Irish passports -- Aoife and myself. Anna is a US citizen, Anca has Romanian citizenship and Jonathan and Karen were travelling on British passports.

A few days before the actual competition we had a maths camp in UCC. Due to a lack of funding and possibly a slight bit of disorganisation, Aoife and I stayed at Anca's house for the five days of the camp. So not only did Anca give up her free time to teach us maths all day but she also made us breakfast, made or bought us dinner and let us sleep in her house. And she made us beautiful crepes one day and was generally unbelievably helpful and friendly.

I quite liked maths camp, I must say. It was a nice change, doing interesting and challenging maths in place of the usual dull and mundane maths at school. I actually had to put effort into it and as a result it was much more rewarding. Plus we had a two hour lunch break. You can't argue with that. We played way too much Frisbee and a rather violent card game called "Set". Well, that's not technically correct . Set is usually a quiet, calm, concentrated sort of a game but then we decided to play boys against girls. Which ended up with Karen and Aoife chasing Declan around the room and a surprising amount of minor injuries as well as a few torn cards. But, hey, we were representing our gender, we couldn't let the boys win.

Luxembourg was amazing, brilliant, crazy, delightful, extraordinary, fascinating, gorgeous I could probably go through the alphabet three or four times with positive adjectives for the little country. I really can't put into words how much fun it was. And how much I learnt. And the people I met. And the strange conversations and funny moments and random singing. There's nothing like a bunch of teenage girls obsessed with maths. I don't know what it's like at the IMO but at the EGMO it's the best. I honestly can't think of any other way to put it. It was so much greater than just the sum of its parts (mathematically impossible, I know) .

The maths competition part was difficult, I grant you that. But not completely undoable, or so I've been told- some of the questions I didn't even understand the solutions to despite the Romanian girls spending more than ten minutes trying to explain the basic principles of code theory to me. And others were sickeningly easy once you noticed a small detail - for example knowing a point was the median of the triangle meant it took me less than ten minutes to solve a problem. Unfortunately I didn't notice this in the exam and was reduced to drawing diagram after diagram to no result. Needless to say, I didn't exactly come first or anywhere near for that matter. But that's not really the point, I was personally really proud of my few points and more importantly again I met some amazing people.

For example the crazy Americans. And when I say crazy I mean it in the best way possible. Jingyi and Alesia were the subject of many conversations, most of which began with "Did you see the crazy Americans" or "You know the crazy Americans, right?" There had been dancing organised which was subsequently cancelled, to the great dismay of the one and only Jingyi. Instead of just moaning about it with the rest of us she harassed the organisers into finding some speakers and then got the American deputy leader to teach us Blues dancing. So there were about forty of us in the basement of the youth hostel, dancing the Blues and it was brilliant.

My best memory would have to be of us singing "99 bottles of beer on the wall" and half way through Alesia getting confused with her numbers. Despite being a certified maths genius, she still had trouble with counting downwards one at a time. Which is reassuring. I was very proud of the fact that we got all the way to zero but I'm pretty sure everyone else was just glad we had finally shut up.

Anna, the youngest member on our team wasn't the best at minding things. That's putting it mildly. Within twenty-four hours of arrival she had lost the keycard to her room, her money and her name tag. On the upside, there wasn't anything left for her to lose in the remaining six days and we got on grand. We were sharing a room, Anna and I, with Alesia and Laura from America and Florina and Sylvia from Romania. We arrived late the first day and expected them all to be asleep. They weren't (due to time differences) and so we had a nice conversation and talked for hours. I think that liking maths makes it really easy to talk to people who like maths. You kind of think you have to stick together or something, and you also know they're crazy enough to enter a maths competition, just like you. So yeah we just skipped the whole getting to know people part and jumped right into being great friends. (Or it could be that trying to get to sleep on uncomfortable beds in the same room has a strange bonding effect)

For me it was a very productive week - I learnt how to say "I know where you live" in more than twenty languages. Again I'm being slightly misleading as I can't exactly pronounce a fair few of them but I have them written down in my little notebook. So if I ever meet someone from Ukraine or Hungary or a variety of other European countries, I can totally freak them out. Which isn't something many people can claim to do.

The team from Luxembourg were really nice. I am slightly biased here as they introduced us to the most amazing chocolate cafe in the world. There's nothing like the smell of melting chocolate as you walk in the door and shelves piled high with flavour combinations which shouldn't work but do anyway . There were over forty flavours of hot chocolate alone. You have got to like people who show you a place like that. They also acted as tour guides for us on numerous occasions, meaning that we got to see loads of Luxembourg that other teams missed out on. They speak Luxembourgish at home but French in shops, understand German and were happy to answer our sometimes (mostly) strange and irrelevant questions.

I had breakfast a couple of times with the Finnish team, usually because I got up slightly late and there wasn't any space left at the table by my team. They like tea. Lots of tea. I'm not sure if Finnish people like tea in general or if it is just that group of girls. Katja brought two different types of speciality tea with her and every morning drunk two cups worth of each. That's a lot of tea.

I probably shouldn't mention this, seeing as I'm generally trying to show how much fun and exciting maths can be. But, yeah, the Finnish leader was correcting their papers and was a little bit bored. So he yawned, as we probably all would. And it was a big yawn, a proper jaw popping yawn. Literally. He dislocated his jaw by yawning from the boredom of correcting the papers. Maybe he was tired too but the point is still valid, it's a dangerous pastime-correcting maths papers. He had to spend a night in hospital and the Finnish team spent a great deal of time drawing him a card with a cup of tea on the front.

I have to mention the English team, mostly because I'm mentioned in their report (at least they said I was.) I had a tendency to lose my team and they were the perfect replacements. They were trying to lose Maria so that they could write it in their report, for added entertainment. Despite all their diligent efforts they failed in the attempt and Maria remained safe and sound for the duration of the competition. At the Blues dancing, myself and Katya discussed finding suitable male mathematicians for husbands. We decided they would have to be able to dance the blues as well as accept our obvious genius. We conceded that it would indeed be difficult but we decided not to give up on the dream - imagine how smart and cute the kids would be!

I felt very inferior, not being fluent in a foreign language. Almost everyone attending could speak in almost perfect English and I sometimes struggle to hold a conversation in German. On the upside, I was able to talk to loads of people and make great friends. And I honestly couldn't write about all of them. By the end of the week I had spoken to twenty out of the twenty two teams as well as various deputies and leaders. And I learnt some useless and irrelevant facts such as

1. German and French shops have only one strawberry breed in common 2. There is a loop hole in the North American Free Trade Agreement which allows the U.S.A to effectively steal Canadian fresh water. 3. In Turkey they have free traditional beers in pubs but you have to pay for the imported beers 4. There are 500,000 people in Luxembourg and another 100,000 cross the borders everyday to work there 5. "Galactic" is almost the same in every language. 6. The Italian Government spent nine years building a car park. 7. People learn Norwegian just to read plays by Henrik Ibsen in their original language.

My week in Luxembourg was quite possibly the best week I ever had and I will be forever grateful to Anca and Jonathan for bringing us, as well as the organisers in Luxembourg, the sponsors, the other teams and basically everyone who was involved in it. I now love maths even more than I used to, which is saying something.

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