2026 Samuel Beatty Report
67th International Mathematical Olympiad in Shanghai, China
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The International Mathematical Olympiad (IMO) is a difficult math competition where students from all over the world attempt to solve 6 problems over 2 days. This year, the 67th IMO was held in Shanghai, China, with a total of 666 contestants from 117 countries competing.

This year, the Canadian IMO team had 2 returning members, Leo Wu and Tiger Li, and 4 new members: myself, Perry Dai, Yuxin (Chris) Fu, and Christopher Li. Interestingly, we were all from the Greater Toronto Area this year. The members of the team were selected based on their combined scores from the Canadian Mathematical Olympiad (CMO), the Asian-Pacific Mathematics Olympiad (APMO), and the Canadian IMO Team Selection Test (TST).

Prior to leaving for the IMO, we participated in a two-week training camp. Usually, this happens at the Banff International Research Station (BIRS), but this year it was held at the University of Toronto (UofT). Our trainers were Eric Shen (the team leader), Howard Halim (the deputy leader), Emily Ma (the observer), Kate Tretiakova, Warren Bei, and Ben Yang.



From left to right: Emily Ma, Tiger Li, Christopher Li, Chris Fu, Perry Dai,
Leo Wu, Ansh Agarwal, Howard Halim, Eric Shen

On the first day, we got to know each other and settled in. From the second day onwards, we had lectures each day on topics like cyclotomic polynomials, groups and fields, and indicator functions. The lectures were 3 hours long, which gave us lots of time to work on questions. I loved the diversity of the topics covered and how many new techniques I learned. Every other day, we also had mock competitions in the afternoon, meant to simulate the IMO and mentally prepare us.

In the evenings, we would often play card games with the trainers! The trainers also organized many fun events for us! On Canada Day, we went to Toronto Islands, and on another day, we went to High Park, both of which were incredibly beautiful. We also went to an escape room, which was my favourite activity.



View from Toronto Islands

On July 11, the team, along with Howard and Emily, left for China. Eric had left a few days before us to vote on the problems that would appear on the IMO. We arrived on July 12 around 5 p.m., and due to traffic, we only arrived at the hotel around 8 p.m., tired and hungry. Thankfully, we were all able to eat and rest, and none of us were jet-lagged! The next day, we went to Shanghai High School, where we would stay for the rest of the competition. After settling in, we went to the Hub. The Hub had lots of snacks and drinks, along with games like air hockey, foosball, and chess. We would spend most of our time there on non-competition days, having fun and meeting people from other teams.

On July 14, we had the Opening Ceremony. It included speeches from people like the President of the IMO Board and the Vice Mayor of Shanghai, along with some musical performances. We also had the country parade, where each team walked onstage with their flag. Every year features a different order for the countries, and this year, they were ordered by their Chinese names. After the ceremony, we rested in preparation for the competition the next day.

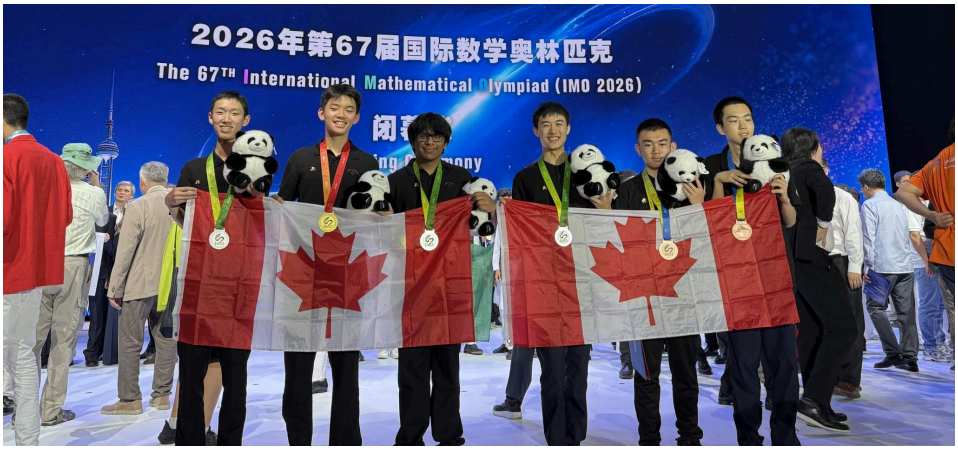
The IMO is split into 2 days, with 3 problems to solve in 4.5 hours each day. Each problem is out of 7, with a full proof needed to get all 7 points. The first problem was a number theory problem involving the gcd and lcm of numbers. This was quite easy for the team, with everyone getting 7/7. Sadly, our team did not fare well on the second problem. This was an incredibly hard geometry problem for its position, and geometry is our team's worst subject. I'm incapable of solving most olympiad geometry problems beyond Problem 1, and we only had 2 people, Perry and Christopher, who were amazing at geometry. Even worse, this problem was incredibly hard to bash, which is what most of our team is good at. As a result, only Perry and Christopher got 7, while Leo got 2 and Chris got 1. Problem 3 was an incredibly tricky combinatorics problem about 2 people splitting a stick. Most of the team got 1 point for providing a construction, and I got an additional 3 points for giving an optimal strategy for 1 of the players.

The second day went much better for us. Problem 4 was a combinatorics problem about splitting a triangle. While harder than Problem 1, the team didn't struggle with it, with everyone getting 7/7. Problem 5 asked us to find all functions satisfying two inequalities, and our team is great at functional equations. Chris got 5/7 for missing one step, while the rest of the team got 7/7, an amazing result on this problem! We tied for 4th on this question overall, which helped our team's rankings a lot. Problem 6 was a number theory problem in which we needed to prove that gaps in a sequence were eventually periodic. While easier than Problem 3, this problem was still incredibly hard. Additionally, the grading scheme was incredibly strict, with almost no partial points given out beyond 1. Because of this, half of our team got 1/7, while the other half got 0/7. Overall, we were quite happy with our results and anxious to learn the medal cutoffs.

The next three days were full of fun and excursions! On the 17th, we went to Shanghai Disneyland and got to try all the wacky rides there! Unfortunately, it was 41°C that day, and none of us could stand the heat. So we ended up leaving around 2 p.m. and spent the rest of the day playing Polytopia. Sadly, our team mascot, Canmoo, was stolen, and it became our mission to retrieve Canmoo over the next few days. On the 18th, we got to see the Shanghai Greenhouse Garden and the Shanghai Science and Technology Museum, both of which were amazing. On the 19th, we were supposed to go on the Huangpu River Night Cruise. Sadly, it started pouring, and the trip was cancelled. Like before, we ended up playing Polytopia, and I got into an intense speedrun race in Celeste with another contestant.

While we were having fun, our team leaders were involved in a process called coordination to determine our scores for the IMO. Each problem is assigned a grading rubric, which awards points for certain parts of a solution. Our team leaders compared the rubrics to our submissions and argued for the points we deserved. Thankfully, coordination went well for us, and everyone got around the score they were expecting.

On the 20th, we watched the World Cup final online! Sadly, it was at 3 a.m., so we ended up doing karaoke with the US team until then. While the match itself was much more one-sided than we'd hoped, it was still incredible to watch it with contestants from different countries. Finally, it was time for the Closing Ceremony, where we all received our medals! Perry got a gold medal; Christopher, Leo, and I got silver; and Tiger and Chris got bronze. Sadly, the cutoffs were unkind to us this year. The gold cutoff was 29, just above Christopher's 28. The silver cutoff was 23, just above Chris's 22 and Tiger's 21. Even so, the team did an amazing job, placing 13th overall with 151 points! Perry, Leo, and Tiger are still eligible to make the team in future years, and I hope they win many more gold medals for Canada!



Closing ceremony

To end the day, we had the farewell party. Many different stalls were open around the campus, with food and games for us to enjoy. As per tradition, this was the time for our team to give out the Canadian IMO pins, an amazing goodbye gift! We all returned to our dorms, playing games and hanging out late into the night. The next day, it was time for us to leave! Thankfully, Leo had found Canmoo, who was now safe in Canadian hands.

Being able to go to the IMO was a life-changing experience, and I'll always remember the friends I made there. Everyone who does math olympiads dreams of making the IMO, and I'm honoured to have represented Canada on a global stage.

I'd like to thank my family, friends, and teachers, who've always believed in me and supported me.

I'd like to thank my teammates -- Perry, Chris, Christopher, Tiger, and Leo -- for being amazing friends.

I'd like to thank the team leaders -- Eric, Howard, and Emily -- for being so supportive and encouraging during the IMO.

I'd like to thank the trainers -- Kate, Warren, and Ben -- for making camp an amazing experience and giving amazing lectures.

I'd like to thank the Samuel Beatty Fund for its generous support in making this opportunity possible.

Finally, I'd like to thank the organizers and the Canadian Mathematical Society for their dedication to making this opportunity possible, and Jane Street for its support. Thank you for such an amazing experience!