

July was a busy month for community outreach in the department of Mathematical & Statistical Sciences. To kick-off the month, on July 11th, Stephanie Mah hosted a **Junior Achievement - 'Dollars with Sense'** workshop to introduce financial literacy skills to eighteen local elementary and junior high students. Some of the topics covered include how to identify financial needs, making informed consumer decisions, the cost of credit, and avoiding scams online.

The following week, the **CMS Alberta Mathematics Summer Camp** ran from July 14<sup>th</sup> to 21<sup>st</sup>. Based on the results of various local and national competitions during the school year, thirty campers aged 13 to 16 were selected and invited to attend. The participants stayed on campus for the entire week, eating their meals and sleeping in St. Joseph's College. During the day, engaging mathematics was explored, usually presented in a recreational way. During the evenings, the campers participated in opening and closing ceremonies, walks to nearby points of interest, a math movie night, board game sessions, crafts, and even a talent show.



Photo credit: Rachel Hardeman

Some of the academic programming included mini-courses on number theory and computer programming (Python), and topical sessions on combinatorics, geometry, graph theory, probability, topology, and two-player games. The highly motivated and competitive group of campers also enjoyed various team contests and a finite state automaton treasure hunt.



Photo credit: Rachel Hardeman

**Sean Graves** directed the camp while deputy director **Ryan Morrill** stepped in whenever Sean had other obligations. **Dami Wi** and **Oba Odelana** were the two camp leaders who stayed with the campers for the entire week. The mathematics sessions were instructed by Sean Graves, Ryan Morrill, Dami Wi, Edmond Tuong, Rachel Hardeman, Nicolae Strungaru, Daria Vyachkileva, and Nicolas Guay. The computer programming mini-course was directed by Zachary Friggstad and delivered by undergraduate students Xander Fair, Brayden Letwin, Nolan Zurek, Kevin Huai, and Weiying Chen.

Immediately after the CMS camp, **Sean Graves, Trevor Pasanen, and Ali Hay** took four of the campers, as well as four sixth-grade students, to represent Canada at the **International Mathematics Competition** in Lucknow, India. The eight 'mathletes' competed against students from 30 countries spanning five continents. The Canadian teams earned a silver medal, two merit awards, and a second-runner-up team-contest award. The young students showed admirable resilience and adapted almost immediately to the differences in timezone, climate, food, and accommodations. The Canadian team mixed well with the children from all over the world and made many new contacts and friendships.



The community outreach continued into August as Stephanie Mah also delivered a **Data Science Workshop** on August 8th. Eleven students in grades ranging from six to eight joined the day-long event to learn about basic concepts in introductory statistics as well as programming in R. By the end of the day, the students who attended the workshop were able to generate summary statistics and perform linear regression on data frames.

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It is now only a few weeks until the busiest time of year on campus. Nevertheless, as we prepare for September, everyone involved in the month of community outreach has wonderful memories of working with these brilliant young minds.