

# Canadian Math Kangaroo Contest Meeting 2025

Organizers:

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May 2, 2025 – May 4, 2025

The Canadian Math Kangaroo Contest (CMKC) meeting took place in May 2025 at the Banff International Research Centre (BIRS). The format of the meeting was in-person with a total number of participants 16. BIRS provided the venue for the workshop, CMKC supported travel and meals of participants. Contest representatives from a number of Canadian cities (Calgary, Edmonton, Lethbridge, Regina, Brandon, Ottawa, Montreal, Toronto, Abbotsford, St. John's) attended the workshop.

## 1 Overview of the Field

Math Kangaroo is an annual international contest for school children in Grades 1-12. In Canada, Math Kangaroo is organized and administered by the Canadian Math Kangaroo Corporation (CMKC), a non-profit organization. Currently, there are 59 active contest locations in 10 provinces throughout Canada, and we continue to expand the reach and scope of our activities. The main purpose of this competition is to introduce participants to math challenges in an enjoyable way, thus inspiring their further interest and advancement in mathematics. The motto of the Canadian Math Kangaroo is "Math is fun and joy!"

Math Kangaroo contest is unique to Canada. Students can participate in Math Kangaroo independently of their home school's involvement. Math Kangaroo sites in Canada are typically universities. Almost all other competitions run through schools. Furthermore, Math Kangaroo is still one of the very few math contests available to Canadian elementary students. During 2020-2022, the contest was offered entirely in online format, due to the Covid-19 restrictions, and it has been offered both online and in-person since 2023.

The number of contest participants in Canada increased from 318 in its inaugural edition in 2006 to about 6832 in the 2025 competition. The number of contestants has been increasing. Post-COVID, we experienced a drop in numbers, especially since we were hosting the contest online and now over the past three contests (2023, 2024, and 2025) we are back in person. In 2024 our total registrations were 6987 and we saw an increase of over 13% in 2025 to 7913.

We organize various long-term educational and promotional activities popularizing mathematics among students, parents, and educators. Accompanying contest activities include training sessions, enrichment classes, math clubs and camps, parents' contests, and award ceremonies. Recently, we started to develop content for the Canadian Math Kangaroo eLearning site [1] obtained through Contact North [2]. The site is maintained by the CMKC to help students enhance their skills in enrichment and competitive mathematics.

This workshop was intended to bring together people that contribute to the mission of the Canadian Math Kangaroo in various ways: members of the national board of directors; executive director and assistants; site coordinators; local contest organizers and supporters; online instructors and content developers; teachers and mathematics educators.

## 2 Recent Developments and Open Problems

The CMKC corporation operates in a decentralized way, and most of its activities are coordinated via online meetings with a small office staff in Edmonton and Montreal. Therefore, bringing together all stakeholders for a discussion of all the aspects of our operations is essential for the growth and continued success of the organization.

The CMKC-BIRS meeting aimed to achieve several objectives. To achieve the objectives, the workshop featured discussion groups / panels / sessions on a number of topics, as listed below:

- Finalization of various educational and training materials that CMKC uses and publishes;
- Discussion of the CMKC website and the Moodle site enhancement;
- Decision-making on contest logistics relating to pre-contest activities, contest day, post-contest activities, recruitment of volunteers;
- Strategies for expanding the contest participation in schools;
- Managing the competition growth by addressing recent growth at both local and national levels;
- Making the contest accessible to participants with disabilities;
- Promoting Indigenous participation in the contest from rural communities.

## 3 Presentation and Discussion Highlights

The workshop featured discussion groups / panels / sessions on each of the following topics:

- Organizing the International KSF Annual Meeting in October 2027 in Calgary, AB Canada;
- Utilizing Learning Management System (Moodle) for promoting enrichment mathematics;
- Competitions in the AI world;
- Selection of problems to be proposed by Canada for the 2026 contest;
- Finalization of the official contest problem solutions for 2025;
- Online enrichment classes and development of content for them;
- Outreach, marketing and presence of Canadian Math Kangaroo in media;
- Preparation of materials and organization of workshops for school teachers/math educators;
- Initiatives related to the support and involvement of underprivileged students;
- National and regional awards policy and distribution;
- Collaborative projects with groups and societies with objectives similar to those of CMKC;
- Logistical aspects of organizing the contest;
- Strategy for regional and national growth.

The workshop consisted of several presentation and discussion sessions on topics of interest to the organization and the workshop participants.

- Friday, May 2, 2025:  
The evening session consisted of informal discussion on past contests and math training programs.

- Saturday, May 3, 2025:

The morning session started with a presentation by Rossitza Marinova to update the participants on the 2025 contest activities. The workshop participants also shared their experiences. The 2025 contest registration entries were: 465 in 19 school sites, 6361 in 56 public sites, and 1087 registered online for completing the test in Moodle.

In a summary, this year's contest went well overall, with only a few exceptions involving 15–20 participants. That is,

- school sites performed strongly;
- public sites also did well, although a few issues did arise;
- online participation was also strong;
- awards are currently underway;
- website improved.

All participants discussed common and specific issues and possible solutions, and lessons learned from the 2025 contest.

The morning session continued with a presentation on "Utilizing Learning Management System (Moodle) for promoting enrichment mathematics." Ildiko Pelczer and Rossitza Marinova presented plans for Moodle site enhancement.

The first afternoon presentation discussed the KSF and provinces curricula for selection of topics for Math Kangaroo Steps classes for students in grades 2-6. It included a comparison between the provinces and KSF curricula.

Led by Ildiko Pelczer, the participants then discussed strategies for expanding the contest participation in schools. The expansion at schools started in 2024 and continued in 2025.

Gautam Srivastava's presentation "Initiatives related to the support and involvement of underprivileged students" provided an overview of CMKC's efforts to promote participation among disadvantaged groups. It focused on fostering dialogue around strategies to increase Indigenous participation from rural communities and ensuring the contest is accessible to individuals with disabilities.

On Saturday night, the participants discussed the organizations of the 2027 KSF Annual Meeting in Calgary, Alberta. CMKC will organize this important international event with approximately 200 participants representing the KSF member countries, which are more than 100. Representatives from these countries will travel to Canada in October 2027 for the annual meeting.

Participants also made decisions on the teams for the finalization of the official contest problem solutions for 2025. Expanding the teams would facilitate improving the quality of the content.

- Sunday, May 4:

The last two sessions on Sunday were used to demonstrate additional examples of problem proposals and plans for analyzing of results from past contests. Apoorva Chauhan presented a talk "Competitions in the AI world", facilitating a discussion on the potential issues associated with competitions and AI. She presented results using different AI platforms for solving Math Kangaroo problems from past years. Rossitza Marinova concluded the workshop with a talk followed by a discussion on aspects and practices of the current operation of CMKC and strategy for going forward.

## 4 Outcome of the Meeting

The two-day BIRS workshop facilitated discussions and decisions on how to further improve the organization of the Math Kangaroo contest and accompanying programs. The meeting is another significant milestone for the Canadian Math Kangaroo Contest team. Representatives from various provinces exchanged ideas and discussed issues. The main outcomes of the meeting include:

- Progress towards expanding the scope and improving the quality of the mathematical content offered by the CMKC organization by utilizing the Learning Management System (Moodle).

- Improve accessibility when appropriate to contestants for content organized by CMKC
- Increase outreach activities to rural communities.
- Gain a stronger understanding of our demographic make-up of participants so that we can improve our diversity through an informed approach.
- Decisions about organizing the International KSF Annual Meeting in October 2027 in Calgary, AB Canada.
- Continue existing initiatives and add new initiatives related to the support and participation of underprivileged students.
- Attract more math educators to our organization to improve the reach of the contest.
- Keep a watchful eye on the use of AI tools for mathematical solving of problems, try to foolproof our problem sets to the use of AI.

Sharing information and ideas is crucial for maintaining a program of such scope, diversity, quality and continuity. The CMKC meeting at BIRS facilitated efficient collaboration, coordination, and knowledge transfer among Math Kangaroo national and regional organizers.

## References

- [1] Canadian Math Kangaroo eLearning, <https://mathkangaroo.contactnorth.ca/> (2025).
- [2] Contact North | Contact Nord, <https://contactnorth.ca/> (Last accessed 2025).