AKSF NEWSLETTER

Issue 11
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Association Kangourou Sans Frontières

Hello and welcome to our 11th Kangourou sans Frontières Newsletter.

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Dear Kangaroo Friends,

It's a pleasure to contribute to the 11th edition of our newsletter! Over the years, we've shared many exceptional articles, and it's exciting to see our organization growing, with more countries joining us. In this issue, I particularly enjoyed the stories about Kangaroo summer camps from Austria, China, Poland, and Turkey. Each camp is unique and brings great value to our students. Thank you to Agnieszka, Ozgur, Renate, and Yihan for sharing your experiences. Additionally, big thanks to the Greek representative, for contributing to each and every edition of the newsletter, fun mathematical stories in the Scripta Manent articles. Thank you, Michael!

What else is new? Researchers are increasingly using Math Kangaroo questions to test AI capabilities. This summer, I had the opportunity to observe AI studies in the U.S., particularly at Mitsubishi Electric Research Labs and MIT. AI shows promise in solving math problems, but much work remains. If you're curious, I recommend reading this here **https://arxiv.org/pdf/2406.15736** Another great read, AI-related, is from Greg (South Africa), see how things are developing there—thanks, Greg, for your contribution!

Wishing you all a wonderful Fall! I'm excited to see many of you in Santos this October. Please check out the fun conference announcement from our fantastic Brazilian team. The next newsletter will be published in January 2025, and I encourage more contributions. The articles can be up to 700 words, with a submission deadline of December 15. I look forward to your ideas!

Sincerely yours,

Joanna
AKSF Newsletter Editor in Chief

News from The President

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Dear Kangaroo friends,

Whereas summer is coming to its end in the northern hemisphere, faster or more slowly depending on where you are, spring is peeking around the corner in the southern hemisphere. It shows the diversity of our association.
However for all of us in common is the upcoming Kangaroo season. I hope all of you have filled out the annual report, have handed in some exciting proposals for next year's competition, are in the process of rating all those proposals and I hope that many of you will be able to travel to our Annual Meeting, in Santos. For the first time, we will meet in the Southern Hemisphere. So exciting! And I can already tell you now that our AKSF4D scheme was very successful this year. We will be able to bring more members to our meeting who, without this extra support, wouldn't be able to travel. It shows the spirit of our family, and I am proud of this!

Well, what happened since our Board meeting in spring in Istanbul (Thanks Özgür for hosting us again!)? Most of the board members supervise one or more provisional members and depending on the experience of this member with organising competitions, this is more or less work. Sometimes it can keep us quite busy. On top of that, Robert is always busy with the finances. As you must have read in the previous Newsletter, we are actually looking for an assistant treasurer. I hope one or more of you are interested in this job. We simply need more hands, and it is a good way to get a glimpse of what the AKSF board is doing.
Which brings me to the Board elections this year. Remember every three years the board is elected newly (don't forget, the board consists of 5 elected and 3 co-opted members – the latter being the organisers of the previous, the current, and the next annual meeting). This year those five board members will be elected again. It's important that the board represents the association – we are getting bigger and bigger, and this should be represented in all sorts of ways. By getting bigger and bigger, there is also more and more work, so we are looking for people that want to help. I would be lying if I said, that being a board member is simply fun. No, it involves work,

sometimes hard work, but it is very interesting, it is working in a wonderful team of great people, and it gives you the experience of working in a very international team on very diverse issues. Does this sound like something for you? If you are not sure, contact one of the current board members, or me, to find out more about what sort of work is involved. And if it is perhaps nothing for you, but for your friend, then please encourage them!

Apart from that, we worked on the usual stuff; changes in membership (thanks Luis), issues with the finances (thanks Robert), issues that people had with the system (thanks Alex, Ozgur, and Matjaz), supporting the organisers of the Annual Meeting (thanks Joanna) and this year some of us met at the WFNMC mini-conference which was part of the big icme15 meeting in Sydney. It was lovely to see so many kangaroo faces in the country of kangaroos.

Opening ceremony of icme'15

At the WFNMC mini conference

We also had the opportunity to discuss various issues with the IMU president prof. Hiraku Nakajima, one of which is very close to my heart: Why do boys outperform girls in maths competitions? Is anyone interested in discussing this with me, or bringing me a counterexample?

Presidential gathering

Sydney

I would like to take this opportunity to express my heartfelt thanks to all the authors who have contributed articles, with special appreciation to Joanna, as well as Özgür and his team, who work tirelessly behind the scenes to make everything run smoothly. Your efforts are truly appreciated!

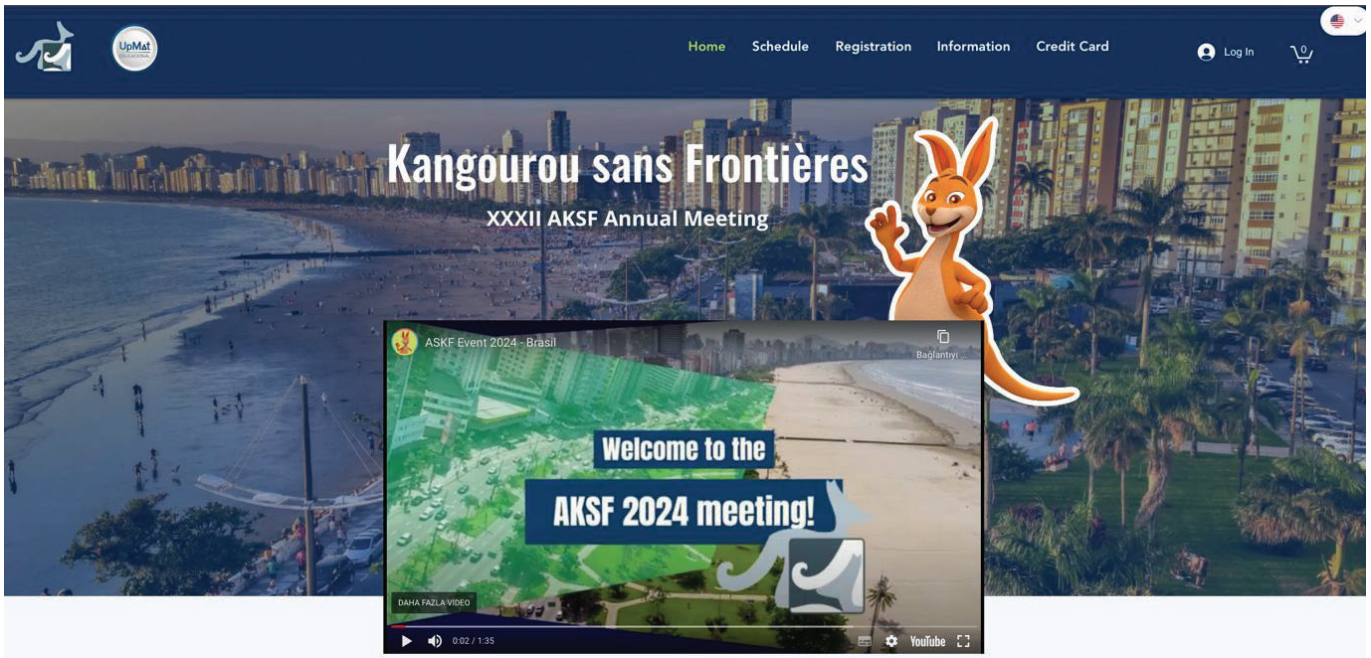
If you have ideas for articles or even just want to discuss potential topics, please don't hesitate to reach out to Joanna. We are always eager to feature engaging and thought-provoking content. In an association as large as ours, it's not always possible to connect with everyone individually, but the Newsletter serves as a platform for sharing what we're all working on. It might spark inspiration, start conversations, foster collaboration, or even lead to something unexpected.

That leaves me to wish you a wonderful time reading this Newsletter. Take care, stay healthy, and see you in Santos!

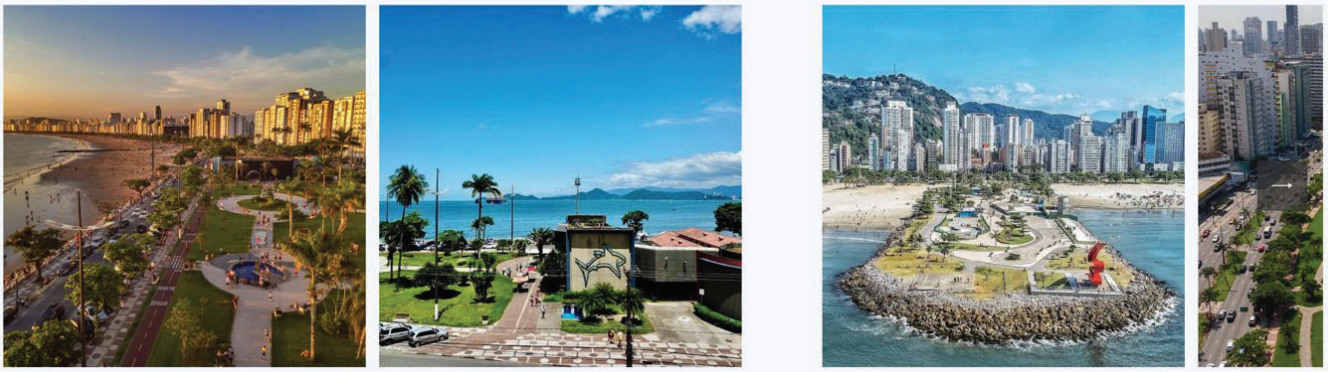
Yours,

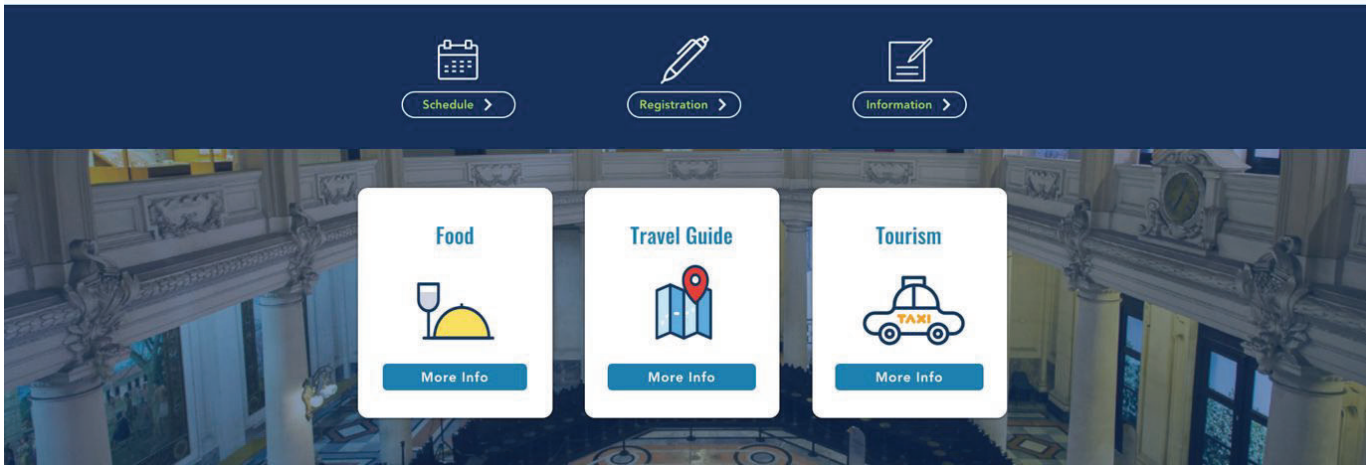
Meike

AKSF President



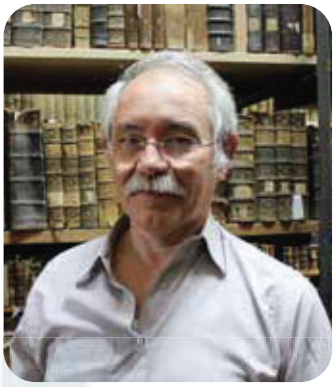
City of Santos and Bourbon Convention Hotel





www.ksf2024.com.br

Scripta Manent



The purpose of this column is to discuss, periodically, proverbial phrases from philosophy, literature, or history that are relevant to Mathematics. In each case, we explore the origin, meaning, and use of maxims which mathematicians and intellectuals often like to refer to.

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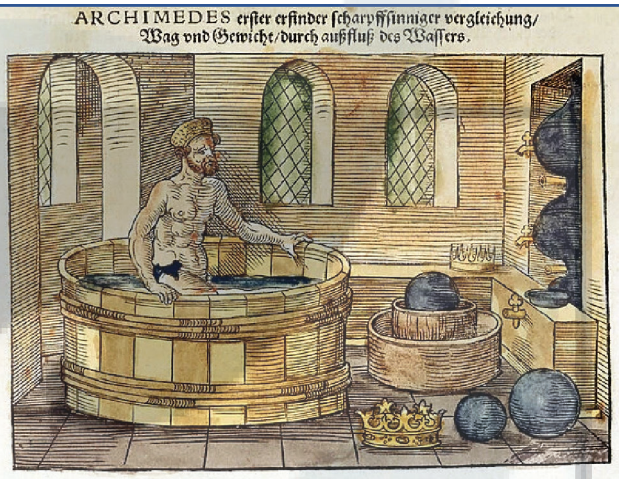
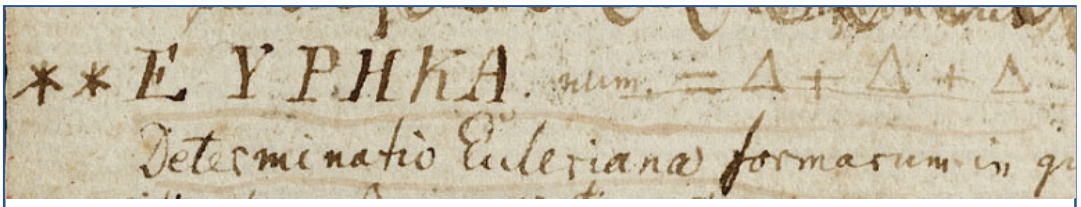
Eureka, eureka

"Eureka" is a famous exclamation of Archimedes (287 BC - 212 BC), uttered in his mother tongue Greek, at the moment of inspiration when he successfully solved a practical problem posed to him by the tyrant of Syracuse, Hieron (308 BC - 215 BC). The tyrant had commissioned his goldsmith to construct a golden crown, but when it was delivered, he suspected that his goldsmith had embezzled a quantity of gold and replaced it with silver. He then asked Archimedes to investigate the case but without destroying the crown. The story goes that while taking his bath, Archimedes conceived the principle of buoyancy, which today bears his name, through which he confirmed the fraud. At that moment he excitedly leaped out of his bath running naked into the streets of Syracuse, shouting "eureka, eureka".



Engraving of the Archimedean incident with the crown

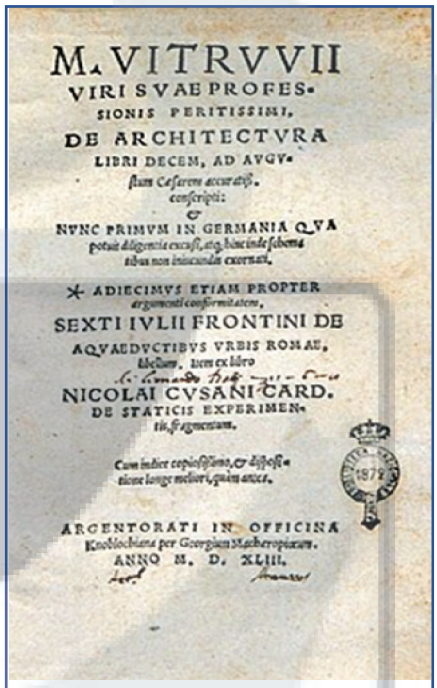
Before coming to the ancient sources of the story, let us discuss in brief the word "eureka" itself. The word "eureka" in Greek comes from the verb "eurisko" (I use here Latin characters to transliterate the corresponding Greek because readers might not be familiar with it) which means to find or to discover. The word "heuristics" in English, referring to the process of problem-solving that facilitates the discovery of a path towards a solution to a problem, comes from the same verb (the extra letter "h" at the beginning of the word "heuristics" is a silent sound in Greek). Archimedes' exclamation became a proverbial phrase, often used by scientists at the moment of illumination or discovery after considerable thought on a problem that occupied their minds. My favourite example is when the great German mathematician Carl Friedrich Gauss (1777-1855) at the age of 19 on the 10th of July 1796 recorded in his Tagebuch (Diary) the cryptic sentence "EYPHKA! num = $\Delta + \Delta + \Delta$". He was referring to his discovery on July 10th that any natural number can be expressed as the sum of three triangular numbers. In passing, note that Gauss wrote the word "eureka" using the original Greek alphabet although the rest of his diary is written in Latin.



Gauss, Tagebuch on July 10th, 1796

Let us return to the Archimedean incident.

Our earliest source for the incident is in Latin some two centuries after it occurred. It is recorded by the Roman architect and engineer Vitruvius (about 80 BC to 15 BC) in his treatise De Architectura. This is a wonderful and influential book in ten chapters on all the knowledge an architect should have for this work. The beginning of every chapter has an interesting accumulation of historical facts and philosophical thoughts, widely drawn from classical Greek art, history, and mythology, which were his prototypes. And there, in Book IX, he describes the story we are discussing. Here it is verbatim in translation to English from the Latin original:


M. VITRVVII
VIRI SVAE PROFESSIONIS PERITISSIMI,
DE ARCHITECTVRA
LIBRI DECEM, AD AVGVstum Cæsarem accuratiſ. conſcripti:
&
NVNC PRIMVM IN GERMANIA QVA potuit diligentia excuſſi, atq. hinc inde ſchematibus non inſcunda exornati.
ADIECIMVS ETIAM PROPTER argumenti confirmationem,
SEXTI IVLII FRONTINI DE AQVAEDVCTIBVS VRBIS ROMAE, libellum, item ex libro
NICOLAI CVSANI CARD. DE STATICIS EXPERIMENtis, fragmentum.
Cum indice copioſiſſimo, & diſſoſitione longe meliori, quam antea.
ARGENTORATI IN OFFICINA Knoblochiana per Georgium Machropiæum.
ANNO M. D. XLIII.

Vitruvius *De Architectura* (1543)

9. Though Archimedes discovered many curious matters which evince great intelligence, that which I am about to mention is the most extraordinary. Hiero, when he obtained the regal power in Syracuse, having, on the fortunate turn of his affairs, decreed a votive crown of gold to be placed in a certain temple to the immortal gods, commanded it to be made of great value, and assigned an appropriate weight of gold to the manufacturer. He, in due time, presented the work to the king, beautifully wrought, and the weight appeared to correspond with that of the gold which had been assigned for it.

10. But a report having been circulated, that some of the gold had been abstracted, and that the deficiency thus caused had been supplied with silver, Hiero was indignant at the fraud, and, unacquainted with the method by which the theft might be detected, requested Archimedes would undertake to give it his attention. Charged with this commission, he by chance went to a bath, and being in the vessel, perceived that, as his body became immersed, the water ran out of the vessel. Whence, catching at the method to be adopted for the solution of the proposition, he immediately followed it up, leapt out of the vessel in joy, and, returning home naked,[o] cried out with a loud voice that he had found that of which he was in search, for he continued exclaiming, in Greek, εὑρηκα (I have found it out).

The next two paragraphs of Vitruvius give us a summary of how Archimedes used "Archimedes' Principle" for his task.

We also have a reference to the incident in Greek. It is in a passage of the widely read historian, biographer, and essayist Plutarch (46 A.D. – 119 A.D.) in his Moralia, in the chapter on Epicurus. He writes referring to Archimedes (I translate), "bathing, as they say, after the overflow of water he perceived the measurement of the wreath as if he were seized by a frenzy, and came out shouting several times eureka".

Such is the story of the most popular word used by inventors and creative minds.

AI chatbots are already better at hard maths than you are

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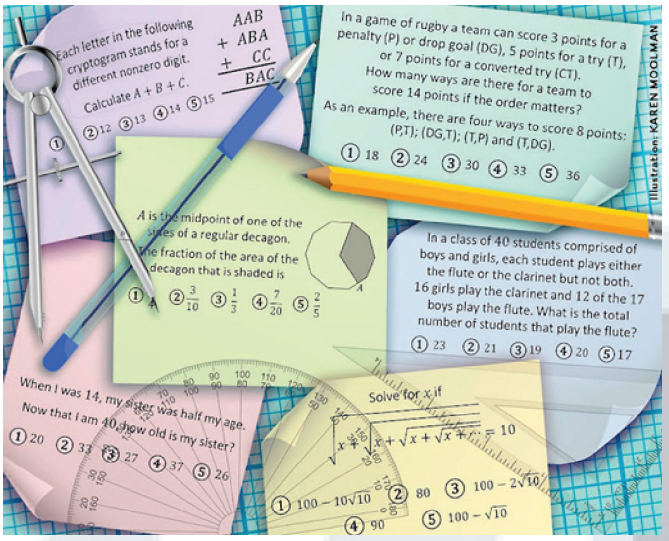
With the pace of development, by 2025 humans may already offer little competition in math competitions.



Measurement of intelligence in humans has always been contentious and vigorously debated. Artificial intelligence (AI) has led to a resurgence of interest in this area, especially since AI engines are now regarded as having passed the Turing Test.

The Turing Test holds that if a machine can engage in a conversation with a human without being detected as a machine, it has demonstrated human intelligence.

AI engines have also passed other difficult tests used to evaluate and accredit humans, such as the US Medical Licensing Examination and the US Uniform Bar exam.

Large language models (LLMs) are evaluated against different question banks containing thousands of questions covering a wide range of areas. Having been trained on all written text

With the pace of development of AI, we may not offer much competition in maths competitions or maths Olympiads from as early as 2025, the writer says. Picture: 123RF

South Africa has competed in the IMO since 1992, and its teams have received one gold medal, 11 silver medals, 55 bronze medals, and 78 honourable mentions. The country placed mid-pack — 53 out of 107 nations — in 2024, a vast improvement from 1992 when no South African got more than seven points and we came 54th out of the 56 participating nations.

We earned our first honourable mentions in 1993, our first bronze medals in 1994, and Bruce Merry earned SA its one and only gold medal in 1997 and our first silver medals in 1998, managing to get four medals in the 2004 event. We have improved over time, but so has the competition.

As in the Summer Olympics, participants from China and the US have consistently topped the table. The Chinese have won more than 60% of the competitions they have entered, but in July the Chinese team was bumped off the top spot for the first time since 2019 by the team from the US. Photographs of the winning US team — comprising Wang, Wan, Tang, Pothapragada, Zhang and Lefkowitz — generated many memes.

In the future, the IMO will not just be a competition between countries but also between mankind and machines, though the top competitors are likely to remain Chinese and American for a while yet.

The AI Mathematical Olympiad (AIMO) prize was created in 2023 to spur innovation. The sponsors, XTX, put up a prize pool of $10m, of which a grand prize of $5m will be awarded to the first publicly shared AI model to score a gold medal at the IMO (or similar). In the first year, the AIMO was run Team Numina topped the leaderboard, correctly answering 29 out of 50 IMO-type questions.

With a little help and "non-exam-like conditions", Google Deepmind's AlphaProof and AlphaGeometry correctly solved four of the six IMO 2024 questions, scoring 29 out of 42, which was better than SA's top IMO competitor of 2024 (Ben Maree), who scored 22, impressively answering three of the six IMO problems correctly and earning a prestigious silver medal.

Maths olympiad problems are exceptionally hard, taking hours to answer and requiring years of preparation and training. Very few humans would earn a non-zero score. On the other hand, maths competition questions could be described as reasoning problems or logic puzzles, though many still rely on mathematical techniques and concepts to get the right answer.

These multiple-choice problems are quick to answer, but they don't come with reference to the subject matter being employed. As with problems in everyday life, knowing what knowledge and reasoning skills to employ is at least as important as being proficient in their application.

The UCT Mathematics Competition is the oldest and most prestigious mathematics competition in SA and is used to identify the grade 8 mathematicians selected to represent their schools. It would have only just beaten Anthropic's Claude. Google's free version of Gemini did not perform as well, but it is only a matter of time before the DeepMind models underlying AlphaProof and AlphaGeometry find their way onto our devices through a software update to Gemini.

• View 6 questions in the grade 8 paper from the 2024 UCT maths competition and how the chatbots fared here

Humans are already no match for chess computers, and with the pace of development, we may not offer much competition in maths competitions or maths Olympiads from as early as 2025. In the case of the UCT Mathematics Competition 2024 paper, generative AI models are already performing at a level only the top 1% of maths competition entrants can achieve, and since they are the cream of the crop this probably already compares to one-in-1,000 high school students.

Each year these studious models will have done more past problems and learnt from their mistakes, so they'll perform even better.

Math Kangaroo Zakopane Camp

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Math Kangaroo Poland Camp took place in Zakopane from July 30 to August 8, 2024. Around 70 students who won the Kangaroo Math Competition participated in this camp. The participants came from eight different countries, including Germany, China, France, Lithuania, Ukraine, Turkey, USA and Poland.

The opening ceremony was held on Tuesday and the welcoming speech was given by prof. Mieczysław K. Mentzen and director of the camp Adam Makowski. He talked about the program and all the participants and countries were presented and given hats with Kangaroo logos.

Trip to Nosal mountain

The camp started with a hike to Nosal Mountain. It is known for its amazing views and the students could admire them from the top as well as take pictures of the Tatra Mountains. Afterward, the participants were sorted into age categories and took part in mathematical workshops on subjects such as interesting geometrical theorems, probability, or prime numbers.

Trip to Gubałówka Hill

On the third day, the students took a short hike to the Gubałówka Hill. It is located on the edge of Zakopane city and it is famous for its shopping area and the gravity slide. The slide was very exciting and students had a lot of fun while riding it.

To get back from the hill, the students took a ride on the Butorowy Wierch chairlift. The Butorowy Wierch chairlift provides a scenic ride to the summit of Butorowy Wierch Peak. It offers stunning views of the Tatra Mountains and serves as a popular starting point for hiking and skiing adventures.

In the afternoon we continued the math workshops.

Sports competitions

During the camp, there were two sports tournaments available for students – a chess tournament and a table tennis competition. A lot of students participated in both of them and the participants had an opportunity to challenge themselves as well as have a lot of fun.

Excursion to Wieliczka

The fourth day of our camp was a full-day trip to the Salt Mine Wieliczka. The Wieliczka Salt Mine, near Kraków, Poland, is one of the oldest in the world, dating back to the 13th century. It features extensive underground tunnels with impressive chambers, chapels, and sculptures carved entirely from salt. A UNESCO World Heritage site, it highlights the history of salt mining and Poland's cultural heritage, attracting millions of visitors annually.

The students had an opportunity to listen to the stories about Wieliczka from experienced tour guides and they also went to a museum with exhibits connected to the mine.

Rest day

On Saturday, students went to thermal aquapark in Zakopane to rest after an eventful start of the camp. This aquapark offers a relaxing experience with natural thermal pools and water attractions. Additionally, it is surrounded by stunning mountain views.

In the afternoon we continued the math workshops.

Funny Mathematics

On Sunday, students participated in the Funny Mathematics event. They were given logical puzzles, games, and problems to solve as well as other mathematical toys.

Trip to Murowaniec

The last hiking trip was to the Murowaniec Shelter. The students were greeted by rain, but despite that, they were happy to continue the hike.

In the afternoon the individual math competition took place. Each student was given 3 tasks to solve in two hours.

Excursion to Kraków City

The last full-day trip was visiting Kraków City. An excursion to Kraków included visits to several of the city's most iconic landmarks. The group explored Wawel Castle, where they saw the famous Sigismund Bell

and learned about the legend of the Wawel Dragon.

They also visited the Jagiellonian University, one of the oldest universities in Europe, and admired the stunning architecture of St. Mary's Basilica in the Main Market Square. The trip offered a rich cultural and historical experience in one of Poland's most significant cities.

In the evening, there was a young talent competition, where each country presented a song or a performance. We heard a lot of great tunes and some amazing spectacles such as magic tricks or dancing.

The closing ceremony

On the last day of the camp, the problems from the mathematical competition were explained and presented. There was also a lecture given by Dr Mateusz Topolewski on the subject of random numbers.

In the evening, the closing ceremony took place, where all of the prizes were given for sports tournaments and mathematical competitions.

The camp director summed up the camp and gave an inspiring speech for students to keep learning math and continue on their journey.

Math Kangaroo Asia Camp: A Feast for Young Math Enthusiasts

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From July 19 to 22, 2024, the Kangaroo Math Asia Camp was successfully held in Bo'ao, Hainan, China. Nearly 1,000 award-winning Kangaroo Math contestants participated in this grand event. The first session of Kangaroo Asia Camp extended invitations to participants who achieved a gold award or higher in the 2024 Kangaroo Math competition in the Ecolier, Benjamin, and Cadet categories. Representatives from China, Thailand, Sweden, Switzerland, and Ghana participated in this mathematical celebration. At the opening ceremony, Dr. Meike Akveld, delivered the opening address. She introduced the history, mission, and some interesting statistics of Math Kangaroo to all participants.

Asia Camp: The Inspiration behind the Concept

The inspiration behind the Kangaroo Asia Camp is rooted in the Kangaroo annual meeting in Orhrid, when China Kangaroo organizer learnt so many countries, especially European kangaroo countries had organized camps that exemplified the importance of nurturing mathematical talent through both competition and collaboration. The idea of an Asia camp was proposed during the annual meeting and immediately got support from the board and many member countries as well. Kangaroo Asia camp aims to bring together the brightest minds from various countries, fostering a spirit of international collaboration and friendship. By blending rigorous academic challenges with fun and engaging activities, the Asia Camp seeks to ignite a passion for mathematics in a vibrant and supportive environment. The tropical island setting adds an element of excitement and adventure, making the camp an unforgettable experience for all participants.

Competition: Exciting Individual Challenges and Intense Team Showdowns

Kangaroo Asia Camp prepared multiple rounds of individual and team-based competitions. The team competitions include the Team Round, where a group of participants discusses and

answer questions together; the Puzzle Round, in which teams work together to solve cross-number math puzzles; and the Guts Round, where participants need to submit multiple sets of problems within a short time frame, with a real-time team scoreboard displayed. These team events are not only exciting and competitive but also foster collaboration and communication among participants. Given that we have observed how engaged and enthusiastic the students are about team competitions, we plan to continue organizing the Kangaroo Team Competition by assembling more difficult questions from the questions pool, for groups of four, specifically for the students who have won in the individual competitions. We also welcome the teachers from each member country to join us in contributing exciting problems for this team competition.

Team Creative Fashion Show and Math Bazaar: Infinite Creativity in Mathematics!

In addition to team competitions, teams are also required to collaborate on creative challenges, such as a team fashion show themed "Kangaroo and Geometry" and a Math Inspiration Bazaar. At the Math Bazaar, teams needed to jointly create a math-themed booth, and a math talk centered on "Mathematics in Our Real Life." This encouraged students to connect mathematics with everyday life and to creatively present mathematical concepts.

Math Workshops: A Unique Math Learning Experience

A key component of Kangaroo Asia Camp is the Math Workshops, featuring experienced math teachers as lead instructors. The workshops cover a range of intriguing topics, including math board games, origami, knot theory, probability in daily life, creative compass-and-straightedge constructions, and so on. These interactive sessions are designed to encourage students to actively explore the world of mathematics in a hands-on and engaging way.

Math Games and Social Activities: A Rich Variety of Entertainment

Amidst the intense competitions, students can enjoy a variety of entertaining activities to give their brains a break. These include Math Games Carnival, Tropical Dance Party, and the sumptuous BBQ feast, all contributing to a joyful and lively atmosphere throughout the camp.

See You Next Year: Looking Forward to Our Reunion!

After the successful awarding ceremony as conclusion of the Math Kangaroo Asia Camp, we received a lot of positive feedback from participants. This event marked the first time the Kangaroo Math Asia countries hosted such a large-scale camp, involving extensive preparations and supported by the global board committee and other Kangaroo member countries. We extend our special thanks to all the member countries that sent representatives and to Brazil, Germany, Thailand, Ghana, and others for their congratulatory videos. We aim to continue fostering a platform where students can enhance their mathematical skills while forming lasting international friendships. We believe with the joint efforts of member countries, we will be able to make Math Kangaroo Asia Camp even better. We look forward to inviting more member countries and participants to next year's Asia Camp for the mathematics celebration together with us!

You can click the following link to watch a recap video of Math Kangaroo Asia Camp!

https://www.facebook.com/share/v/L3PY315PZbPYpNCA/

DATCH 2024 in Vienna

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3 countries, 5 days, 6 adults, 12 girls, 12 boys, and one passion: Math.

2011 Austria, Germany, and Switzerland started the so-called "DATCH" meetings, whereby D stands for Germany (Deutschland), AT for Austria, and CH for Confoederatio Helvetia. The main idea behind these meetings was to honor the best participants of the category Cadet of each country.

Also we thought to recruit some talented young mathematicians for Math Olympic courses.

This year's meeting took place in Vienna beginning on the 19th of June and ending on the 23rd of June. Although different math activities are an important part of the meeting, there is also enough time to get to know the country and have fun activities.

Like every year our students had to go through a speed competition, based on 30 problems of the category Cadet, an individual competition, and a group competition. For the speed competition, the participants formed small groups of four. All groups were supervised by an adult. The task of the speed competition is to solve the 30 given problems one by one and as quickly as possible. All groups start with the same problem at the same time, and after having solved the first problem, they go to the second one. If an incorrect solution, they get the chance for a second try. There is a limit of five chances for a second try. For every not solved problem of the group finishing first the other groups get 2,5 minutes. That means that the quickest group is not automatically also the winner of this competition. For the individual competition, our students had to solve seven different problems. For the group competition, the students worked together with students within their country. Seven problems were proposed, the solution of one problem had to be presented orally, and the other five problems had to be solved in writing. The presentation is always quite interesting and everybody can ask questions.

Besides the Math competition, we were able to provide three workshops, where the workshop of Dima, one of the leaders of our Swiss participants, with puzzles, was the favorite one. We also visited the Institute of Science and Technology Austria (ISTA) in Klosterneuburg, having a tour and a very interesting workshop about AI.

The cultural highlight was the visit of the Castle Schönbrunn and the city center of Vienna.

One evening we went Bowling, and the rest of the time was spent for socializing and having fun with different games. On our last evening, the winner of the different competitions got some prizes.

No matter where or when these meetings take place, they are always a great success, therefore we are looking forward to next year in Switzerland.

We would like to thank MmF ("Mathematik macht Freunde", Professor Michael Eichmair), a project of the University of Vienna, Math department, and the OeNB (Austrian National Bank) for the financial support.

Kangaroo Math Summer Camps: A Global Sanctuary for Young Mathematicians

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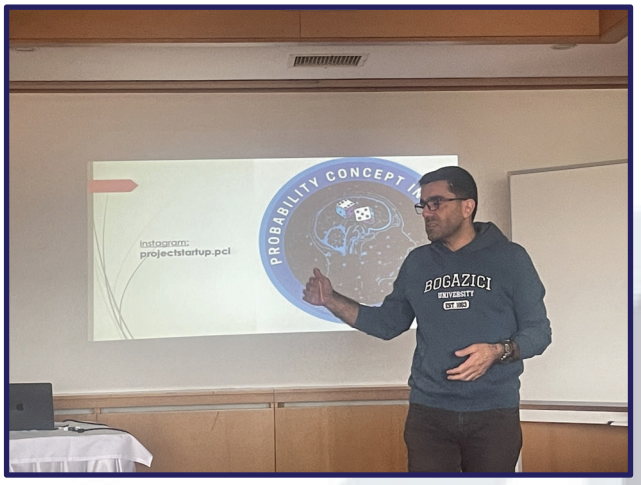
We have been organizing summer camps as awards for successful students who have won the competitions of the Kangaroo Mathematics Association, of which we have been a member since 2014. Our Istanbul Kangaroo Mathematics Summer Camp is organized for 8 days in Polonezköy, a cute neighborhood of Istanbul. Our camp, which is open to the participation of middle school and high school students, is held at the Adampol Hotel, which is also located in this neighborhood and has been run by a Polish family for 3 generations. We want to open our summer camp, which is attended by students from Azerbaijan, Iran, Poland and Turkey, to students from more countries with the renovation of the hotel.

In our camp, there are math lessons from academics almost every day, math questions and solutions of the day, math games in the garden, various mathematical puzzles and treasure hunts. We also organize daily Island tours and Istanbul trips. We expect Kangaroos from all over the world to our camp at the beginning of July!

To participate, just contact us at iletisim@kanguru-tr.com.


PROBABILITY CONCEPT
Instagram:
projectstartvp.pci
BOGAZICI
UNIVERSITY

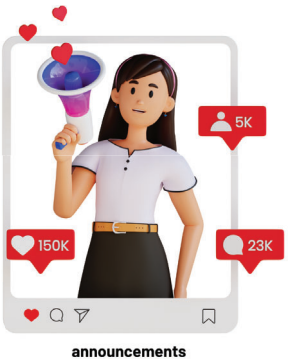
Important announcements:

New group about problem sharing and using after the competition

Join a new Kangaroo group led by Ulrika Dahlberg from Sweden, focused on using Math Kangaroo problems in the classroom after the competition. The group will explore resources to help teachers extend students' learning. Ulrika will share how Sweden publishes results and provides classroom materials. To participate, complete ***this form*** or contact Ulrika at **ulrica.dahlberg@ncm.gu.se.**

The Treasurer's Assistant needed

Our treasurer needs some help with basic record-keeping, requiring 20-30 hours per year. Tasks include creating invoices and receipts and contacting members about payments or finance issues. Desired skills: patience, a friendly attitude, MS Word, and written English. No financial degree or accounting knowledge is needed. This position does not involve access to AKSF accounts. Fill out the **FORM** if interested.



The social media person in charge needed

Did you know we have a Facebook page? Please visit our page, like it, and follow it!

https://www.facebook.com/aksf.org

Would you like to help make our page more creative and active? If you're often on social media, your input would be valuable. Tasks include posting updates, responding to comments, creating content, and staying on top of trends. Contact Joanna if you're interested in supporting our organizational visibility.

Important dates for the season 2024/2025

Kangaroo day	Thursday, March 20, 2025

Study problems
1.10.2024 / 17.11.2024
Participants can study problems and group chairs can preselect problems.

Download Proposed Problems
1.10.2024 / 19.04.2025
Proposed problems are available for download.

Select Problems
23.10.2024 / 27.10.2024
Problems preparation during Annual Meeting.

Download Selected Problems
30.10.2024 / 19.04.2025
Selected problems are available for download.

Finalize Problems
28.10.2024 / 15.11.2024
Problems are being finalized (Language and style improvements, corrections..)

Download Finalized Problems
18.11.2024 / 19.04.2025
Final versions of problems (including latex files and all the figures) are available for download.