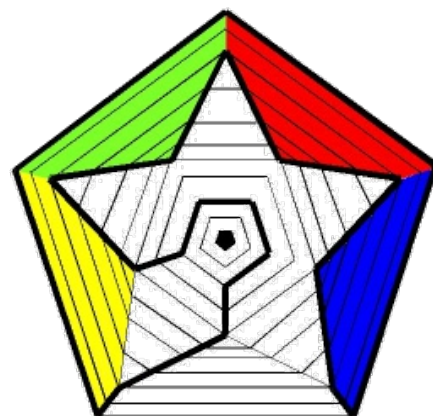


# SHORT CIRCUIT

Canberra Mathematical Association Inc.

VOLUME 17 NUMBER 5 MAY 2026



## NEWS AND COMMENT

In this edition there are several pieces that remind us that mathematics is a cultural phenomenon. Its motivations have often come from the sciences, but it also interacts with the arts and with sport, and with many other parts of our lives.

In particular, the presentation by ATSIMA CEO, Dr Chris Matthews, at Melba-Copland Secondary School made this point, and the participants on the day explored its implications for the classroom.



A mathematics teacher using sport to collect data for statistical processing.

The potential for CMA interacting with Qwestacon is exciting. (See Valerie Barker's report on page 6.)

The Canberra Maths Talent Quest is on again this year. (See page 4 for details.)

The Australian Maths Trust has supplied a list of the webinars they are presenting over the coming months. ( See page 3.)

## NEWSLETTER

The CMA newsletter, Short Circuit, is distributed monthly to everyone on our mailing list, free of charge and regardless of membership status.

That you are receiving Short Circuit does not imply that you are a current CMA member but we do encourage you to join. Short Circuit welcomes all readers.

## CMA MEMBERSHIP

Memberships run from 1 Jan to 31 Dec. each year. Membership forms may be downloaded from the CMA website:

<http://www.canberramaths.org.au>

The benefits of Membership of CMA may be found on the website.

**CANBERRA  
MATHEMATICAL  
ASSOCIATION**

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# PHYSICS PL

From Lachlan McGinness:

I wanted to let you know that SEAACT is running a K–10 professional learning session focused on hands-on physics, inquiry, and data analysis. This will be particularly useful for anyone who wants to learn STEM activities for light, colour, or circuits in the classroom.

The session is designed to be very practical. You'll work through simple, low-cost activities that can be taken straight into your classroom, along with some discussion about how to structure these as inquiry-based lessons. There will be options for different year levels, including Year 5, Year 6, Year 8 and Year 9. Senior physics teachers may also be interested.




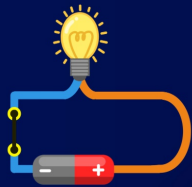
## K-10 Teacher Professional Learning

### Hands-on Physics Inquiry and Data Analysis


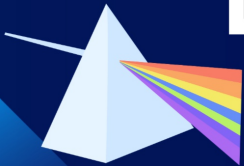
*Light | Year 5, Year 9  
Circuits | Year 5, Year 8 & 6, Year 8*

When: Thursday 7<sup>th</sup> May 2026  
 Where: Headley Beare  
 Time: 4pm-6pm (2 hours)  
 Cost: \$5 members, \$10 non-members  
 Register: scan QR code below

SCAN ME → <https://qrco.de/bgj06W>

TQI 2 HOUR ACCREDITED

# PUZZLE

## 1. A triangle in Japan



A visitor to Japan photographs a prominent triangular piece in the moat wall of a Temple in Nagoya. Thinking the piece may be somehow special, the tourist, who is, in fact, a creator of puzzles, measures the angles, and makes the following observations.

1. The three angles, measured in degrees, have two digits each. They are in the form  $ab$ ,  $ba$  and  $cd$  where  $c$  has the value  $a + 1$  and  $d$  has the value  $b - 1$ .
2. There may be more than one such triangle. What could the angles be?

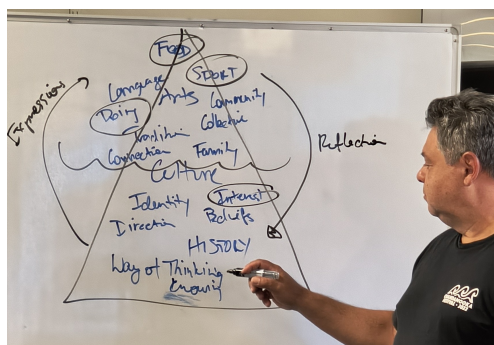
## MAST

On the first day of term 2, a group of teachers met at Melba-Copland Secondary School to learn about Maths as Story Telling (MAST).

This is an idea developed by Dr Chris Matthews of the Aboriginal and Torres Strait Islander Mathematics Alliance, while he looked for a way to better engage First Nations students with school mathematics.

Text-book 'word problems' are stories of a kind, but they are contrived and can be irrelevant to many students. Dr Matthews argues that mathematics is an expression of culture, and is not meaningful for students unless it relates to the world of their experience. His presentation expanded on this idea. (See the picture at left.)

At Melba-Copland, a mathematics program that connects with students' sport culture is being offered to good effect.



## AMT WEBINARS FOR TEACHERS

From the Australian Maths Trust:

Are you interested in AMT Competitions and Programs but need some more insight into how to run them? Join our webinar series where we cover what's included, key dates and how to run AMT competitions and programs. Most webinars run for 15 minutes (unless otherwise stated), followed by an optional Q&A time. For all queries, please email us at [competitions@amt.edu.au](mailto:competitions@amt.edu.au).

Previous Webinars:

Problemo, Kangaroo Maths (KSF) competition, Maths Challenge (MC), Maths Enrichment (ME) and Computational and Algorithmic Thinking (CAT) competition – recordings of these webinars are available upon request.

Upcoming Webinars:

Maths Challenge and Enrichment Webinar 1 - Tuesday 5th May, MC: 3:45 – 4:00pm, ME: 4:00 – 4:15pm  
 Maths Challenge and Enrichment Webinar 2 - Wednesday 6th May, MC: 3:45 – 4:00pm, ME: 4:00 – 4:15pm  
 Problemo Webinar - Tuesday 12th May 3:45 – 4:00pm  
 Problemo Webinar - Wednesday 13th May 3:45 – 4:00pm  
 CAT Coding Webinar 1 - Monday 25th May 3:45 – 4:00pm  
 CAT Coding Webinar 2 - Tuesday 26th May 3:45 – 4:00pm  
 Australian Maths Competition (AMC), Webinar 1 - Tuesday 9th June 3:45 – 4:00pm  
 Australian Maths Competition (AMC), Webinar 2 - Wednesday 10th June 3:45 – 4:00pm

There will also be two webinars on 21st and 22nd July for those who have already signed up for the AMC and would like technical/admin help running the competition (email us for links to these).

Australian Intermediate Mathematics Olympiad (AIMO) and Australian Informatics Olympiad (AIO)  
 Webinar 1 - Tuesday 18th August, AIMO: 3:45 – 4:00pm, AIO: 4:00 – 4:15pm  
 AIMO and AIO Webinar 2 - Wednesday 19th August, AIMO: 3:45 – 4:00pm, AIO: 4:00 – 4:15pm

Plan for 2027 with AMT Webinar 1 - Tuesday 15th September 3:45 – 4:00pm  
 Plan for 2027 with AMT Webinar 2 - Wednesday 16th September 3:45 – 4:00pm

## MATHEMATICS IN ART

In the Hanna Neumann building at the Australian National University, there is currently an exhibition of art works by staff, students and alumni of the Mathematical Sciences Institute.

The exhibition is curated by Tim Brook, Mandy Gordon, Akrti Tyagi, Felipe Messias and Tony Martin. It continues to Friday, 8 May 2026, 5pm.

*Mathematics in Art* is an exhibition of works in a variety of media. A distinct mathematical concept was essential in the development of each of these works. However, as the [website](#) explains, the impact of each work doesn't depend on the elegance or otherwise of the underlying mathematics but on an exploration of ideas in an artistic tradition.



The mathematician Roger Penrose introduced M.C. Escher to tessellations, but the artistic value of Escher's work isn't determined by the underlying symmetry groups ...

## THE CANBERRA MATHEMATICS TALENT QUEST 2026

The National Mathematics Talent Quest has provided a venue to showcase the creative thinking skills of students in Australia for many years. To be eligible to enter the national quest a project has to be successful in a similar quest at the state level. Students throughout the ACT put considerable time and effort into mathematics assignments and projects and now have a means to get local or even national recognition and encouragement for their work.

Students may participate in the quest in one of three categories:

- Submit an individual entry
- Be part of a small group (up to 5 students)
- Be part of a whole class entry (6 or more students)

Entry is free.

All students from Kindergarten to Year 12 in the ACT can submit an entry.

The project or assignment can be the student's own idea or a teacher's set task with an outstanding student response.

The projects or assignments may be presented in any format including:

- Essays, scripts, stories, poems, diaries, illustrated texts, newspaper format or any other form of writing
- Posters
- Videos
- Models – static or working
- Computer based (coding)
- PowerPoint presentation
- Spreadsheet or database.

We will give you more information about submission of entries in July. Entries in most of the states have moved to digital submissions, usually using PowerPoint. Entries that win their category can be entered in the national competition. Entries in the National Mathematics Talent Quest must be submitted electronically. This is due to the way the entries are evaluated by judges in all the states and territories.

Schools can submit up to two entries per category (individual, group or class) per year group to be assessed by an ACT judging panel.

You can start anytime but entries must be submitted by Friday 24th August 2026.

Entries need to be sent to [andrew.wardrop20@gmail.com](mailto:andrew.wardrop20@gmail.com)

Models and other non-digital submissions may be posted to  
PO Box 3572, Weston Creek, ACT 2611

The handbook will be available on the CMA webpage. Updates will be provided in Short Circuit and on the CMA webpage: <http://www.canberramaths.org.au/>

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## THE 2026 CMA COMMITTEE

President	Aruna Williams	Erindale College
Vice President(s)	Bruce Ferrington	Radford College
	Peter McIntyre	University of NSW Canberra
Secretary	Valerie Barker	
Treasurer	Jane Crawford	Covenant Christian School
Membership Sec.	Paul Turner	
Councillors	Theresa Shellshear	Australian Catholic University
	Heather Wardrop	
	Andrew Wardrop	
	Yuka Saponaro	Melba Copland Secondary School
	Bernadette Matthew	Mother Teresa School
	Linda Goth	
	Katrina Simms	

Theresa Shellshear is CMA's COACTEA representative.

Bruce Ferrington is CMA's AAMT representative.

Short Circuit is edited by Paul Turner.

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## ABOUT THE CMA

The Canberra Mathematical Association (Inc.) is the representative body of professional educators of mathematics in Canberra, Australia.

It was established by, among others, the late Professor Bernhard Neumann in 1963.

It continues to run - as it began - purely on a volunteer basis.

Its aims include:

- the promotion of mathematical education to government through lobbying,
- the development, application and dissemination of mathematical knowledge within Canberra through in-service opportunities, and
- facilitating effective cooperation and collaboration between mathematics teachers and their colleagues in Canberra.

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Short Circuit is the newsletter of the Canberra Mathematical Association Inc.

PO Box 3572

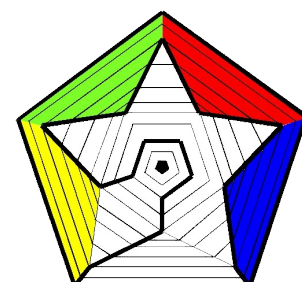
Weston ACT 2611, Australia

E-mail: [canberramaths@gmail.com](mailto:canberramaths@gmail.com)

<http://www.canberramaths.org.au/>

Find us on [Facebook](#)

The vertices of a dodecahedron belong to a Hamilton circuit.



## QUESTACON TECHNOLOGY CENTRE

From Valerie Barker

### Questacon and CMA partnership

Although all of us will know of and will have probably enjoyed many visits to Questacon, the National Science and Technology Centre in the parliamentary triangle, fewer may be aware of the Questacon Technology Centre which is tucked away behind the Australian Mint in Deakin. This division of Questacon has been functioning for many years, providing a significant resource centre for professional development for teachers not just in the ACT but from all over Australia.

CMA was very pleased to be invited to join a recent Community of Practice (CoP) that Questacon held for local ACT STEM (mostly science) teachers in both the primary and secondary sectors, pre-service teachers, and university and CIT teachers and lecturers. The focus was on the M in STEM - the rather neglected Mathematics of the acronym! Three of your CMA Councillors – Valerie Barker, Aruna Williams and Linda Goth – had the pleasure of contributing to the activities program, sharing in the discussions about maths artefacts participants had brought to share, and making a short presentation outlining both the work of CMA and our recent conference, as well as the following three provocations:

1. The trouble with Maths is English
2. Orientation: whose perspective?
3. The meaning of the = sign

Given the predominance of science teachers who were present, the challenge for them to be considering the mathematics they are using in the classroom (and that their students will be learning in their maths lessons), provided much stimulating discussion.

CMA is now hoping to maintain these links and collaboration through the Questacon Education Community of Practice, an on-line space that links and supports state-based Communities of Practice, and which is led by educators and facilitated by

Questacon. This will enable the continuing sharing of ideas, resources and event information, to support STEM engagement, whatever the context, both in the ACT and nationally.

The next ACT CoP, Technology and Engineering themed, will be on 28th May at St Francis of Assisi school. CMA members will be warmly welcomed, I know!

You can register with the following link.

<https://www.questacon.edu.au/whats-on/events/stem-educator-community-practice-canberra>