

SHORT CIRCUIT

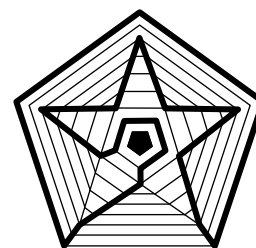
Newsletter of the Canberra Mathematical Association INC

Coming Events:

November 8 AGM & dinner

Wednesday Workshops:

None for term 4



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MEMBERSHIP

NEWS AND COMMENT

AGM

The Canberra Mathematical Association Inc. annual general meeting and dinner will be held on 8th November 2017 at 7:00 p.m., at Erindale College.

Come along to enjoy the food and the social occasion, and consider the possibility of becoming a committee member. Your professional association needs you.

Arrive from 6:30 for a 7:00 p.m. start to the meal. Cost: \$30.00.

To help with catering, please let us know that you are coming by emailing canberramaths@gmail.com.

At the AGM an agenda item will be a proposal to change the membership fee structure of the organisation.

Arguments for the change include the fact that compared with other AAMT affiliates, CMA has low fees. Also, the organisation has grown to the point where it may soon be necessary to employ an administrative officer to manage the clerical workload.

The proposed fees are:
Individual \$90.00
Institutional \$150.00
Student \$25.00 (to include a journal subscription).

Your views on this proposal are welcome.

The Wednesday Workshops have been called off for term 4. See page 2.

According to the Global Math Project, this week, Oct 10-17, is Global Math Week. See page 2 on Exploding Dots.

Join or renew your membership for calendar year 2018

A membership application form can be accessed from the CMA website:

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

CMA membership includes automatic affiliation with the Australian Association of Mathematics Teachers and a free AAMT journal.

Members are entitled to attractive rates for CMA professional development events and the annual conference.

CMA members may attend conferences of other AAMT affiliates, MAV, MANSW, etc. at member rates.

Note: Receipts for membership and other payments are sent out by e-mail. If you have paid for your membership but have not received a receipt or if your AAMT journal(s) have not been arriving, please advise CMA membership secretary, Paul Turner, or another committee member.

**CANBERRA
MATHEMATICAL
ASSOCIATION**

WEDNESDAY WORKSHOPS

The CMA Committee recognises that teachers are busy in term 4 with report writing, school fetes and many other activities, and will understand if the planned dates for Wednesday Workshops do not go ahead.

Instead, we suggest some Online Learning activities.

Explore:

1. Lesson resources from [reSolve](#). (Foundation to year 10). See also science resources from the [Australian Academy of Science](#).
2. The [Global Math Project](#). We may be late for the Global Math Week hosted by the project but the resources and ideas are still there. Learn about [Exploding Dots](#).
3. The interactive website [Brilliant](#) offers teaching ideas in the form of puzzles, problems-of-the-week and idea sequences in many branches of mathematics, also science and computing. It's a wiki.

PUZZLES

1

From Brilliant (see above) comes the following question in geometry. The Brilliant website provides colourful diagrams for this but we invite you to draw your own.

Given a circle, a square and an equilateral triangle all with the same area, which of them has the greatest perimeter?

The problem can be solved the hard way by calculation but we wonder whether there is there a more elegant solution, possibly accessible to primary students?

There are various ways to extend this problem. We could include other regular polygons with the same area, for example, and find out how to arrange them all in order of increasing perimeter.

What if, instead, the perimeters were the same but we were asked to compare the areas?

2

It is undeniably true that all parabolas have the same shape.

How would you explain the meaning of this assertion to a secondary student and demonstrate its truth?

Would your explanation fail if *parabolas* was replaced with *circles*?

Could you decide whether or not the assertion is true for graphs of logarithm functions?

CONFERENCES AND EVENTS

CMA Annual General Meeting, 2017

November 8, Erindale College, 7:00 p.m.

CMA MERCHANDISE

Contact Elaine Hooke on 0407 788 493 or e-mail cmamerchandise@gmail.com for the following items:

Canberra Mathematics Association Navy Polo shirts \$36 with logo, Pi Earrings \$15, Easy as Pi badges and Pi pins \$8.

Free delivery to your ACT school. Elaine can attend your Maths staff meeting.

CONTRIBUTE TO SHORT CIRCUIT

Short Circuit welcomes your contributions and your feedback. Communicate with us through the CMA email address: canberramaths@gmail.com

SHORT CIRCUIT

reSOLVE CHAMPIONS

Around thirty teachers from the ACT and nearby NSW met at the Shine Dome on October 4 for a training session for their roles as [Mathematics by Inquiry](#), reSolve champions.

The reSolve program is an initiative of the Australian Government Department of Education and Training. It is managed by the [Australian Academy of Science](#) in collaboration with the [Australian Association of Mathematics Teachers](#), and is funded by the Australian Government Department of Education and Training.

In attendance at the training day were representatives from the ACT Education Directorate, the Catholic Education Office and the Association of Independent Schools.

Clearly, the reSolve project is being taken seriously by all sectors and it is expected that it will fulfil its initial brief to strengthen mathematics education at the primary and secondary levels.

Champions were addressed by AAMT CEO Will Morony, Executive Director MBI Dr. Steve Thornton, and other team members throughout the day and, in the opening session, were offered words of support and encouragement by Professor Hans Bachor of the Australian Academy of Science.

The reSolve team is presenting similar training sessions for the champions in all the capital cities. The nation-wide coverage should ensure that no school is beyond the reach of the program. (This [link](#) shows the locations of the 260+ champions.)

Champions will be available to deliver the reSolve professional learning modules and to support the use of the reSolve classroom resources.

MATHS JAM

Maths Jam events happen on the second last Tuesday of every month in many places around the world. Maths enthusiasts get together in a pub and share things they like. It is happening here in Canberra at Olim's Bar in the Mercure hotel, Limestone Avenue. Interested people can join a mailing list for reminders about events by visiting the [Maths Jam](#) website.

INTERNATIONAL MATHEMATICAL MODELLING CHALLENGE

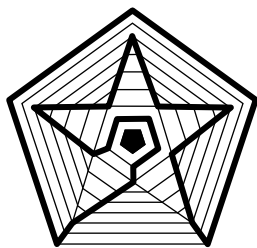
The International Mathematical Modelling Challenge (IM2C) is a team-based mathematical competition for Australian secondary students.

Interested teachers can register to receive more information about the 2018 challenge. Go to www.immchallenge.org.au.

TEAM LEADER POSITION

EUROPEAN GIRLS' MATHEMATICAL OLYMPIAD
In 2018, the Australian Mathematics Trust will be supporting an Australian team to compete at the European Girls' Mathematical Olympiad (EGMO); see www.amt.edu.au/egmo-announcement.

To help support this initiative, the Trust is recruiting for a part-time paid EGMO Team Leader position. Interested candidates should contact recruitment@amt.edu.au for a position description. Applications close 13 October 2017.



**NEWSLETTER OF THE CANBERRA
MATHEMATICAL ASSOCIATION
INC**

PO Box 3572
Weston ACT 2611
Australia

E-mail: canberramaths@gmail.com

We're on the Web!

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

THE 2017 CMA COMMITTEE

President	Bruce Ferrington
Vice Presidents	Bronwyn Welch Sue Wilson
Secretary	Jo McKenzie
Treasurer	Paul Turner
Councillors	Peter McIntyre Elaine Hooke Valerie Barker Sam Hardwicke Maggie Quigley Theresa Shellshear

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.

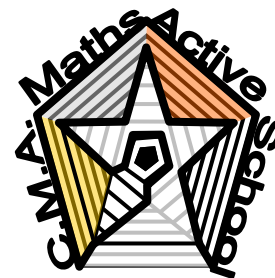
Its aims include

- * 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.

Radford College
Canberra Grammar School
Australian Catholic University
ACT Education Directorate

University of NSW Canberra

Lyneham High School
Turner School
Kaleen Primary School
Australian Catholic University



Short Circuit is edited by Paul Turner.

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CHOOSEMATHS AWARD



Congratulations to Sam Hardwicke of Turner School who received a [Teaching Excellence award](#) from CHOOSEMATHS, a project of the Australian Mathematical Sciences Institute (AMSI).

‘A champion of maths, Sam’s genuine passion opens its wonders, curiosities and joy to students, colleagues and parents. When he teaches everyone wants to be part of his lessons. As 5/6 Team Leader and Numeracy Coach Sam has transformed mathematics for the Turner School community. Project learning has provided real-world 21st century context, incorporating technology platforms and resources to empower students and encourage their love for exciting and innovative mathematics. Bringing industry into the classroom, he has led the establishment of initiatives such as STEM clubs, a biennial STEM Festival, and participation in opportunities such as the Statistical Society of Australia’s poster competition.

His mentorship has built the knowledge and capacity of his colleagues, encouraging innovative practice and a shift to inquiry- learning approaches to maximise student engagement and learning outcomes. His involvement in a range of education and mathematics organisations has deepened the school’s engagement with the Australian mathematical community.’