

# SHORT CIRCUIT

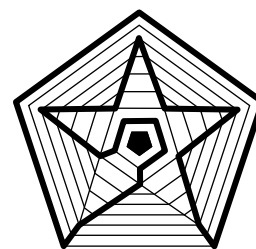
Newsletter of  
the Canberra Mathematical Association INC

Coming Events:

August CMA Conference  
November 2015 CMA Annual General Meeting and dinner

Afternoon workshops:

Wednesday, 18 March, Radford College: Steve Hood  
Wednesday, 13 May, Namadgi School: Steve Hood



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MARCH, 2015

## FROM THE EDITORS

The CMA Wednesday Workshop series got off to a fine start in February with a presentation to an enthralled group of participants by Caroline Evers on using paper folding to develop ideas about fractions. Caroline included in her talk some useful observations about when and how to introduce the special words associated with this crucial concept.

Coming up, are two sessions presented by Steve Hood, again with a 'language' flavour. Steve's workshop is on Mathematical Literacy. Details are to be found on page 6.

While the members of the CMA council are delighted that the Wednesday Workshops appear to be meeting a demand, the council would very much like to hear from members concerning what other events, activities or initiatives they would like to see organised by their professional association. It is recognised that teachers' professional needs may change with the times and we would like to keep up. Please communicate your thoughts to a CMA councillor.

On page 3 we have included a short piece written by a participant in the recent National Mathematics Summer School. CMA offers some financial assistance to the students from the ACT who are selected to attend this event each year but further support from one or more other benefactors would be most welcome.

If you missed the once in 100 years (American) Pi-moment at 9:26 am on Saturday, 3/14/15 (using the month-day-year date convention) it probably passed you by again at 9:26 in the evening.

One hundred and eight Students from various schools marked the event on Thursday, Friday and Saturday at Dickson College with a digit-memorising contest – another initiative of Caroline Evers. Two Kaileen Primary students recited from memory 191 and 163 digits respectively, a Dickson College student managed 260, and the overall champion, from Lyneham High achieved 1001.

See the photo on page 5.

## MEMBERSHIP

Memberships may now be renewed for calendar year 2015.

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

<http://canbermaths.weebly.com/>

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

Among other benefits, members are entitled to attractive rates for CMA professional development events and the annual conference.

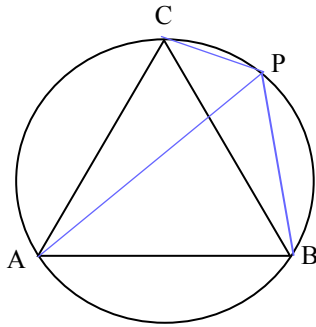
CMA members can also attend conferences of other AAMT affiliates, MAV, MANSW, etc. at member rates.

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 treasurer, Paul Turner, or another committee member.

PUZZLE

Circle geometry and trigonometry

Draw a circle with an inscribed equilateral triangle with vertices labelled A, B and C. Choose a point P on the arc between B and C. Draw the lines PA, PB and PC. Find and prove a relation between the lengths of PA, PB and PC.



CMA MERCHANDISE

Contact Elaine Hooke on 0407 788 493 or e-mail [cmamerchandise@gmail.com](mailto: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

Send in your musings, your puzzles, your reports about activities and events you have participated in, your notices about coming events, or anything else that might be of interest.

[canberramaths@gmail.com](mailto:canberramaths@gmail.com)

If you are a member of CMA, you are automatically a member of The Australian Association of Mathematics Teachers and should receive your journal and other communications directly from the AAMT office in Adelaide. <http://www.aamt.edu.au/>

Some resources:

Top Drawer Teachers – <http://topdrawer.aamt.edu.au>

PHILOSOPHY IN SCHOOLS

Workshop:

Thinking Schools, Thinking Students—  
Creating a toolbox for thinking

Presented by Daniel Smith, Stanmore Public School, NSW.

“Dan Smith is a trained philosophy educator who has successfully driven and refined Philosophical Inquiry programs both at Stanmore Public School in NSW and Serpell Primary School in Victoria, significantly transforming school values, culture and building teacher capacity through Philosophical Inquiry.”

Saturday 21st March, 9:30am—4:00pm.

Australian Catholic University.

CMA members \$60, Lunch provided.

Registration: [carolyn.broadbent@acu.edu.au](mailto:carolyn.broadbent@acu.edu.au)

Information: [www.coactea.org.au](http://www.coactea.org.au)

AAMT—CONNECT WITH MATHS

There are now four *Connect with Maths* online communities teachers can join.

[Make it count with Indigenous Learners](#) community

[Early Years Learning in Mathematics](#) community

[Maths in Action \(Applications and Modelling\)](#) community

[Engaging All Students](#) (Catering for Diversity) community

Subscription to these communities is FREE.

If you would like to join one or more communities, click on the link.

*Coming Soon...*

Digital technologies for Mathematics community

## SHORT CIRCUIT

### FEEDBACK FROM A NATIONAL MATHEMATICS SUMMER SCHOOL PARTICIPANT

Shane Aurora:

The National Mathematics Summer School was a truly amazing opportunity for me. Firstly, NMSS taught me some interesting university-level mathematics.

In addition to this, the summer school showed me that maths is an enormously large field with more challenge and mystery than is shown at my normal school. Furthermore, it allowed me to get to know some of the eminent mathematicians of the current era through the daily course lectures and the weekly alumni lectures.

Finally, and most importantly, NMSS enabled me to enjoy my favourite subject even more.

The mathematics of NMSS was not the only great part of the school. Over the two weeks, I was able to develop many great friends. These friends are all different, coming from different states and social backgrounds. Nevertheless, they all got along well with me and helped me enjoy my time even more by giving me great memories and aiding me when I was struggling with the maths. The friends I have made at NMSS are going to be my friends always.

### CSIRO MATHEMATICIANS IN SCHOOLS (MIS)

Diana Pham:

**TEACHER + MATHEMATICIAN =  
REAL-WORLD MATHS IN THE CLASS-  
ROOM**

Mathematicians in Schools (MiS) is a nationwide initiative, which inspires and engages both primary and secondary students by creating and supporting long-term partnerships between teachers and mathematicians.

By bringing real-world mathematics into the classroom, MiS partnerships can help promote a deeper understanding of mathematical concepts, and can allow students to appreciate the important role that mathematics might have in their lives.

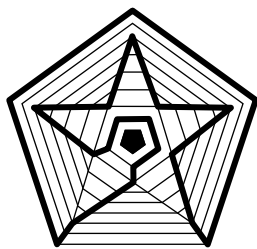
Each partnership is unique and completely voluntary. There are no fixed hours or required activities – it's up to the teacher and the mathematician to negotiate how to collaborate. Our volunteer mathematicians have a variety of academic backgrounds, including in economics, accounting, land surveying and mathematical science.

Once registered, the project team will individually match your school with a suitable mathematician, and provide you with ongoing support through resource materials and face-to-face workshops and networking sessions.

To find out more and to register, visit [www.mathematiciansinschools.edu.au](http://www.mathematiciansinschools.edu.au) or email [sis.act@csiro.au](mailto:sis.act@csiro.au).

*Mathematics in Schools is funded by the Australian Government Department and CSIRO, and is managed by CSIRO Education and Outreach.*

*Please also visit [www.scientistsinschools.edu.au](http://www.scientistsinschools.edu.au) for information on science and ICT partnerships.*



**NEWSLETTER OF  
THE CANBERRA MATHEMATICAL  
ASSOCIATION INC**

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Weston ACT 2611  
Australia

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

We're on the Web!  
<http://www.canberramaths.org.au/>

## 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.

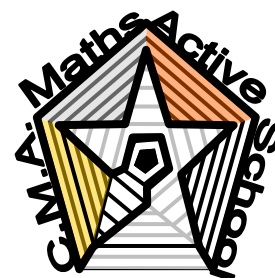
Its aims include

- \* 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.

## THE 2015 CMA COMMITTEE

President	Bronwyn Welch
Vice Presidents	Sue Wilson Jurek Paradowski
Secretary	Theresa Shellshear
Treasurer	Paul Turner
Councillors	Aruna Williams Andy Wardrop Heather Wardrop Patricia Tandy Ed Staples Peter McIntyre Jo McKenzie Michael Klinkert Elaine Hooke Erin Gallagher Bruce Ferrington Caroline Evers Valerie Barker

CSIRO
Australian Catholic University
Telopea Park School
Australian Catholic University
Stromlo High School
Erindale College
Lake Tuggeranong College
Melrose High School
University of NSW Canberra
Namadgi School
St Edmund's College
Radford College Junior School
Dickson College
University of Canberra



**Find us on Facebook**

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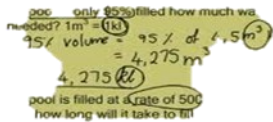


Pi-day at Dickson College

## A CMA Wednesday Workshop not to be missed!

Stephen Hood,  
University of Canberra Senior Secondary College, Lake Ginninderra  
Presents:

# Mathematical Literacy



The Canberra Mathematical Association is proud to announce two workshops given by Stephen Hood on the 18<sup>th</sup> March 2015 and the 13<sup>th</sup> May 2015. This is a great opportunity to learn more about mathematical literacy with powerful applications for your classroom. Don't miss this one!

### Synopsis:

*After briefly exploring broad principles of effective literacy in the mathematics classroom, this workshop demonstrates development of skills, knowledge and fluency using two activities, one from the bank of lessons created under the Mathematics Curriculum and Teaching Program (MCTP) in 1993 and another from the Scootle digital object repository.*

*The aim of the first activity is to stimulate students to develop interpretive and descriptive skills about a graph and then to stimulate creative writing skills in a group recount of the many stories that the graph represents. The activity explores how this resource can be used early in high school years and then be extended into higher year levels to develop knowledge and use of equations and algebra.*

*The second activity is based around the Scootle learning object "Hamlet Happens". The activity opens with a brief review of Shakespeare's famous soliloquy from Hamlet and then develops fluency and skills in experimental and theoretical relative frequency and calculation of probabilities. The activity also describes opportunities the activity presents to students to record and analyse a data set in a systematic way.*

*Whilst both activities will be delivered based on experience in the secondary setting, primary colleagues will be able to see applications of these concepts in their own settings.*

### Sessions:

Opportunity 1: *Radford College Wednesday 18 March 2015 (term 1) 4:30pm- 6:30pm*

Opportunity 2: *Namadgi School Wednesday 13 May 2015 (term 2) 4:30pm- 6:30pm*

Cost: \$20 for non-members, Free for CMA members or institutional members (two per institution only).

Light refreshments available from 4:30pm, promptness appreciated.

Bookings: Simply register by emailing Ed Staples from our CMA website:

<http://www.canberramaths.org.au/professional-learning-opportunities.html>