

# SHORT CIRCUIT

Newsletter of  
the Canberra Mathematical Association INC

## Coming Events:

Wednesday, March 19 *Afternoon workshop series*

Wednesday, May 14 *Afternoon workshop series*

Wednesday, June 18 *Afternoon workshop series*

August 16 *2014 CMA Conference*  
*"Catering for Diversity"*

November 11 *2014 CMA Annual General Meeting and*  
*dinner - Erindale College, 7 pm.*

## Afternoon workshops:

Wednesday, March 19

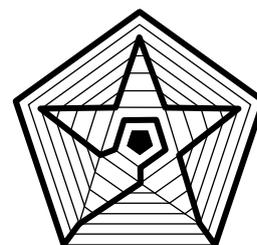
North-side: Radford—Ed Staples, 4:30 - 6:30 p.m.

Wednesday, May 14

South-side: Namadgi—Mike Clapper, 4:30 - 6:30 p.m.

Wednesday, June 18

North-side: Radford—Mike Clapper, 4:30 - 6:30 p.m.



VOLUME 5 NUMBER 1

APRIL, 2014

## FROM THE EDITORS

In this edition we remember and celebrate much loved and long-serving mathematics teacher Phil Rasmus, who died on 21 February, 2014. We include an article about Phil by Glenda Beasley who knew him as a friend and colleague. In connection with Phil Rasmus's passionate championing of the teaching profession and of public education particularly, readers may also wish to read a speech farewelling Phil given by Glenn Fowler of the Australian Education Union. Glenn's speech is accessible at the site

[http://www.aeuact.org.au/farewell\\_phil](http://www.aeuact.org.au/farewell_phil)

On a far less melancholy note, we can report that the series of Afternoon Workshops that Ed Staples is coordinating is attracting an impressive number of attendees. Ed himself has been the presenter for the first workshop—given twice, once Southside and once Northside. He is uncertain whether to ascribe the success to his qualities as a presenter, to the pressures being applied to teachers by the TQI or to a general renaissance

of interest in mathematics throughout the community. The next pair of workshops will be presented by Mike Clapper. Details may be found on page 5. Note that Mike's workshops will be free for members but will cost \$20 for others.

## MEMBERSHIP

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

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

A membership application form for the CMA can be downloaded from our website:

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

Note:

Receipts for membership payments are normally 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 a committee member.



## MATHS ACTIVE SCHOOLS

*Talk to Jurek Paradowski  
about making your school a  
Maths Active School.*

## PUZZLE

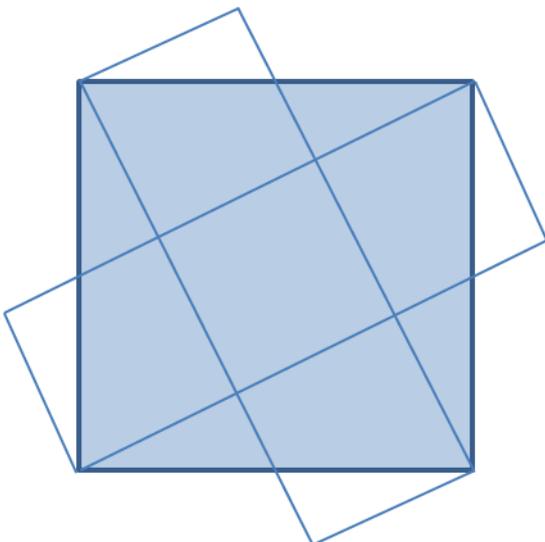
Everyone who has had toast for breakfast knows how to make a large square out of two smaller ones or conversely, how to dissect a square slice of toast and rearrange the pieces to make two smaller squares. Either way, the new square has a side length that is not a rational multiple of the original.

It is also possible to do this trick making one large square into three equal sized smaller ones, or start with three small squares and make them into one bigger one. There are at least two ways of doing this. One way was discovered in the tenth century by a Persian astronomer, Abul Wefa. It involves dissecting the large square into nine pieces – eight triangles with two different sizes and one square. Another way was discovered more recently by Henry Dudeney involving just six shapes.

What is the side length of the larger square if the small squares have unit side? How would you construct this length using a straight edge and compass only?

From *Sensational Shape Problems & Other Puzzles* by Ivan Moscovich (except for the toast).

Five small squares can make one big one using nine pieces. Is there a smaller number of pieces that will suffice?



## CONNECT WITH MATHS

### Launch of Online Early Years Mathematics Community

The *Connect with Maths: Early Years Learning in Mathematics* community is ready for educators with an interest in the teaching and learning of mathematics for children birth to eight years of age.

Central to the activity of this community is the Forum - a place for learning, sharing ideas, experiences and teaching expertise. Teachers and other educators are encouraged to explore the space and 'have a play' - visit the Forum to have your say, ask a question or begin a debate.

To learn more about this new *Connect with Maths* community and to view the program schedule click [here](#).

To join the Connect with Maths: Early Years Learning in Mathematics community and get started interacting with others interested in Early Childhood Mathematics, click [here \(join\)](#).

There are now two *Connect with Maths* channels:

[Make it count with Indigenous learners](#)  
[Early Years Learning in Mathematics](#)

## AAMT

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.

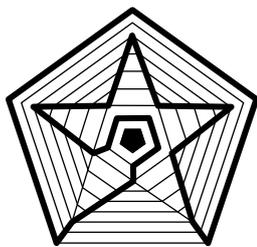
Some resources:

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

Make it Count – <http://mic.aamt.edu.au>

Indigenous learners – <http://connectwith.indigenous.aamt.edu.au>

Early Years – <http://connectwith.earlyyears.aamt.edu.au>



**NEWSLETTER OF  
THE CANBERRA MATHEMATICAL  
ASSOCIATION INC**

PO Box 3572  
Weston ACT 2611  
Australia

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

We're on the Web!  
<http://canberramaths.weebly.com/>

## 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 2014 CMA COMMITTEE

President	Bronwyn Norrie	Canberra Grammar School
Vice Presidents	Erin Gallagher	
	Jurek Paradowski	Telopea Park School
Secretary	Theresa Shellshear	Australian Catholic University
Treasurer	Paul Turner	Erindale College
Councillors	Sue Wilson	Australian Catholic University
	Heather Wardrop	Lake Tuggeranong College
	Andy Wardrop	Erindale College
	Valerie Barker	University of Canberra
	Jo Kellow	Stromlo High School
	Patricia Tandy	Melrose High School
	Peter McIntyre	University of NSW Canberra
	Bruce Ferrington	Radford College Junior School
	Ed Staples	
	Elaine Hooke	
	Michael Klinkert	Dickson College
	Caroline Evers	Dickson College
	Gavin Scales	Gungahlin College
	Aruna Williams	Erindale College



**Find us on Facebook**

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**SHORT CIRCUIT****RECOLLECTIONS OF PHIL RASMUS**

by Glenda Beasley

I first met Phil in 1976 at what was the CCAE when we were both studying for our Graduate Diploma in Education. I had the privilege of knowing him for the next 38 years and working with him for some of that time.

Phil was truly passionate about mathematics. His home resource library, which was almost legendary, reflected this passion. If anyone asked Phil about resources for a particular topic at least one green shopping bag full of books would be deposited on their desk the next day. At school, he always made sure that there was room in the budget for maths faculty resources.

Phil's passion for mathematics was evident in his teaching. He was an exceptional teacher who inspired his students. As a university medallist his knowledge and skills in mathematics were obvious but it was his ability to communicate his love of mathematics to his students, often using his wonderful sense of humour, that made him so special. Former students have told me that Phil's teaching was a major factor in their success not only at college but at university.

I, like many others, have lost a friend and mentor. The ACT mathematics community has suffered a great loss with his passing. We will all miss him terribly.

*2014 afternoon Professional Development sessions*

MIKE CLAPPER

## Problem Solving – getting it back to the centre

This presentation will explore ways in which teachers can ensure that all students engage in problem solving and enrichment activities. Whilst there are many resources available for problem solving and enrichment, these are often poorly sequenced and structured. The presentation will explore the use materials from the Australian Mathematics Trust and other sources which are well-sequenced and aim to develop problem-solving skills and to encourage students to think mathematically.

### Problem-centred activities

Cross-national comparisons show that students in high-performing countries spend a large proportion of their class time solving problems (Stigler & Hiebert, 1997). The students do so individually as well as co-operatively. Fundamental to this is a shared belief, between teacher and students that the responsibility for knowledge creation lies with the students (Clarke & Hoon, 2005).

### Connections

Askew et al. (1997) report that successful teachers of numeracy are 'connectivist'. Such teachers use powerful representations of concepts and transparently link mathematical vocabulary and symbols with actions on materials. The use of realistic contexts helps students to connect mathematics with their worlds.

### DATES:

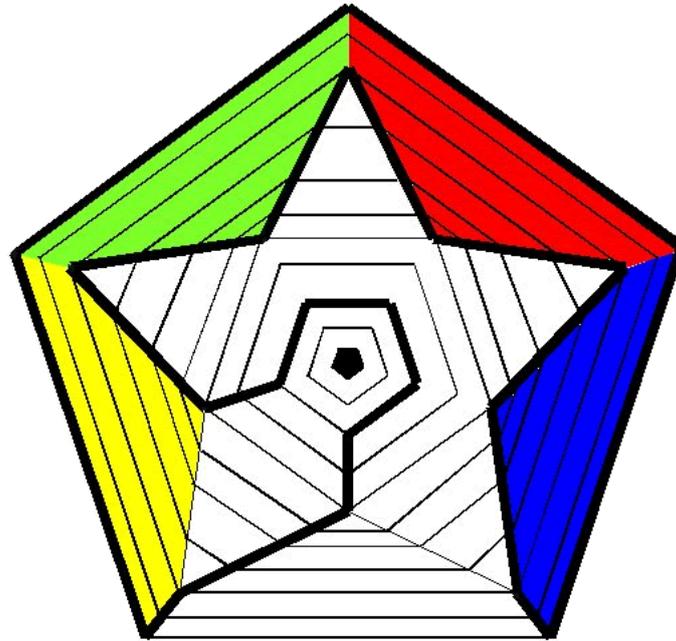
South-side  
Namadgi - Wednesday 14 May 2014, 4:30 - 6:30 p.m.

North-side  
Radford - Wednesday 18 June 2014, 4:30 - 6:30 p.m.

### COST:

Non-members      \$20

Members            free



**THE CANBERRA MATHEMATICAL ASSOCIATION**

***CMA 2014 MATHEMATICS CONFERENCE***

***CATERING FOR DIVERSITY***

**VENUE: ACU, ANTILL STREET, WATSON**

**DATE: 16 AUGUST 2014, 9:00 am -5:00 pm**

**Great prizes! Keynote speakers!**

**Fully catered!**