# **SHORT CIRCUIT**

Newsletter of the Canberra Mathematical Association INC

## **Coming Events:**

18 August—CMA conference, ADFA
14 November—ACM AGM

## Wednesday Workshops:

23 May — Maths300: 4:30-6:30 p.m. Hedley Beare Centre for Teaching and Learning.

VOLUME 9 NUMBER 2

APRIL 2018

# MEMBERSHIP

# NEWS AND COMMENT

The Annual General Meeting of our umbrella organisation, the Australian Association of Mathematics Teachers, will be held in Adelaide on the weekend of 20-21 April.

The AGM marks the occasion of the departure of Will Moroney as CEO and the commencement of the tenure of Dr Duncan Rayner.

At the same time, Jurek Paradowski from the ACT becomes the new president, taking over from Allason McNamara.

Congratulations to Team Australia in the European Girls' Mathematics Olympiad held in Florence, Italy this month. The Australian team placed 20th in the competition with a silver

medal, two bronze medals, and an honourable mention.

Around forty-five people attended the Term 1 CMA Wednesday Workshop in March, presented by Kristen Tripet from the reSolve team. CMA is grateful to Canberra Grammar School for the use of their excellent new mathematics building for the venue.

Planning is now under way for the CMA Conference in August. If you would like to present a workshop at the conference, please send us a message. The organising committee will be pleased to hear from you.

Join or renew your membership for calendar year 2018

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

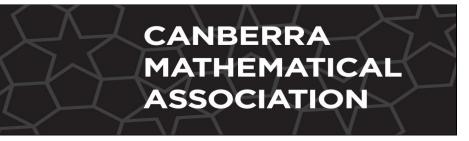
http://www.canberramaths.org.au/index.html

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 email. 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.



# WEDNESDAY WORKSHOP—TERM 2

The Wednesday Workshop on 23 May will be about the Maths300 resource which is now being managed by the AAMT.

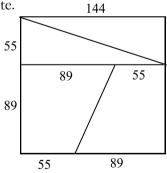
The local contact person for Maths 300 is Bruce Ferrington. Bruce will present the workshop, which will be held at the Hedley Beare Centre for Teaching and Learning, 51 Fremantle Drive Stirling ACT. The time for the session is 4:30-6:30 p.m.

Wednesday Workshops are free for CMA members and cost \$20 for non-members.

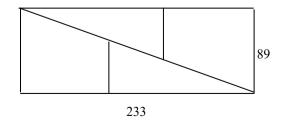
Register by emailing <u>canberramaths@gmail.com</u>.

# **PUZZLES**

1. This puzzle is a variation on an old one from Sam Lloyd (1841-1911). Begin with a square measuring 144 by 144 mm. and cut out the shapes as shown in the following diagram, being careful to make the measurements accurate.



Now reassemble the pieces to make a rectangle:



The areas are different, but not by much! How is this possible?

2.

The Fibonacci sequence begins  $\{1, 1, 2, 3, 5, 8, 13, ...\}$ . Each new term is obtained by adding the previous two. It is well-known that if fractions are made out of pairs of successive terms, 1/1, 2/1, 3/2, 5/3, 8/5, and so on, the sequence of fractions approaches the special number  $\varphi$  which, as a decimal, is approximately 1.618.

What if a similar kind of sequence is constructed with different starting numbers, say {1, 3, 4, 7, 11, 18, ...} and a sequence of fractions is made as before: 3/1, 4/3, 7/4, 11/7, 18/11, ... and so on?

Does this sequence of fractions approach the same limit as the one from the Fibonacci sequence, or a different limit, or no limit?

# CMA MERCHANDISE

CMA has items for sale including:

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

CMA is looking for someone to take on the responsibility for merchandise, to take over from Elaine Hooke who has stepped down after giving years of excellent service in the role.

# CONTRIBUTE TO SHORT CIRCUIT

Short Circuit welcomes your contributions and your feedback. Communicate with us through the CMA email address: <a href="mailto:canberramaths@gmail.com">canberramaths@gmail.com</a>

## **SHORT CIRCUIT**

# AMSI—CHOOSE MATHS AWARDS

The <u>CHOOSEMATHS</u> Awards is a project of the Australian Mathematical Sciences Institute. The awards aim to celebrate students and teachers who demonstrate mathematics achievement, and also creativity and excellence in Australian schools.

Readers may recall that Sam Hardwicke from the ACT was a winner last year. AMSI would like to get the word out to as many teachers and creative students as possible again this year and is encouraging nominations.

Visit the awards <u>website</u> for details. For further information, contact Kristin Marriner at AMSI, Kristin@amsi.org.au.

## MAWA VACANCY

The Mathematical Association of Western Australia (MAWA) is seeking an Executive Officer to start as soon as practicable after the start of Term 2, 2018. For more information, please contact <a href="manager@mawainc.org.au">manager@mawainc.org.au</a> or phone 08 9345 0388. Applications close 23 April 2018.

# CONFERENCES AND EVENTS

CMA Annual Conference, ADFA, Saturday 18 August, 2018. Keep the date: details to be announced.

The Conference Organising Committee is now calling for offers from potential presenters. If you have an idea for a presentation that could interest teaching colleagues, please contact <a href="mailto:canberramaths@gmail.com">canberramaths@gmail.com</a>.

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## **NEWSLETTER OF THE CANBERRA** MATHEMATICAL ASSOCIATION INC

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Treasurer

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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 2018 CMA COMMITTEE

President Jo McKenzie **ACT Education Directorate** Vice Presidents **Bruce Ferrington** Radford College

Sue Wilson Australian Catholic University Valerie Barker Australian Academy of Science Secretary

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ISSN 2207-5755