

United Kingdom
Mathematics Trust

UK Mathematics Trust News

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In this issue

Our new website 1

**International
Mathematical
Olympiad in the UK 2**

Maths Miniatures 2

**Junior
Mathematical
Challenge 3**

**Publications
snippets 3**

**Annual student
poster competition 4**

Diary dates 4

New website launching summer 2019

We are delighted to announce that we will soon be launching a new website. We have worked hard to ensure that the site is designed with schools and colleges in mind and that it will help our staff to deliver the excellent service that you have come to expect.

Members of staff from registered UKMT centres will be able to order papers for our competitions online and receive immediate confirmation. They may choose to pay upfront by credit or debit card, or to download an invoice for payment by BACS or cheque as required by their institution's internal processes.

As well as having a fresh look, the website is designed to make accessing information and past competition materials as easy as possible.

Pages for each competition will display clear information about

competition dates and entry deadlines to make sure everyone who wants to take part has the greatest opportunity to do so. Users will be able to access their institution's competition results online allowing us to minimise the time between the date of the competition and participants finding out how they have performed.

For the Team and Senior Team Maths Challenges, a map will allow users to locate the most convenient events to enter and see real-time information about the number of spaces remaining.

We are confident that the new website will support the smooth operation of our activities as entry numbers grow.

Our new website will launch ahead of the 2019-20 academic year.

Keep an eye on
www.ukmt.org.uk

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The Senior Mathematical Challenge page of our new website

International Mathematical Olympiad in the UK

The International Mathematical Olympiad is coming to Britain. In July 2019, some of the best school mathematicians from about 110 countries will gather in Bath for the annual world championship.

The IMO last visited the UK in 2002 when it was held in Glasgow, and it was held in London in 1979. The event will run 11-22 July 2019, with the students based at the University of Bath, and the jury initially located in Newport, Wales.

There is an IMO 2019 website www.imo2019.uk where you can watch a video about this IMO, and also view the volunteering opportunities to become involved in helping to run the event. We particularly welcome people with language skills to become a team guide, and help the delegation of a particular country to enjoy their short stay in the United Kingdom. These days, English is so widely spoken by young people around the world that we also welcome volunteers for that role who speak



A still from the IMO 2019 promotional video

only English. At past IMOs, most of the team guides have been university students.

There are lots of other roles too. We need a small army of invigilators to administer both of the 4 hour 30 minute exams which are the heart of the competition. This must happen according to strict protocols to ensure complete fairness. The contest days are 16 and 17 July.

After the exams the students will enjoy excursions, and those need volunteer support too. There are all sorts of other things to do as well, ranging through administration, supporting the IMO jury

and much else besides.

We are determined to put on our best face, and to run a magnificent competition. Some companies and academic institutions are providing financial support for IMO 2019, and if you want to discuss a possible donation, please send an email to imosupport@imo2019.uk

Visit www.imo2019.uk to find out more about the competition and the many volunteering opportunities available.

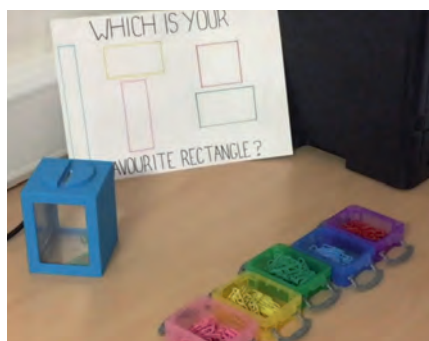
Maths Miniatures

As we build up to hosting the 60th International Mathematical Olympiad later this year (see the previous article), and following on from a small trial last year, we are pleased to work with the IMO organising committee and other partners to launch this new competition across the UK.

Registration is now open for *Maths Miniatures*, a mathematical short film competition for teams of students from schools and colleges in the UK.

The film, in which a team of two to six students explore this year's theme of *Mathematics in Sport*, must be no more than three minutes long. Each team is responsible for all planning and content of the film and the film

should include a clear explanation of the mathematics involved.



A still from last year's joint winner

Mathematics is everywhere – it is integral to modern life and surrounds us in our natural environment, but it appears in our leisure activities too! It's also important that young people learn to communicate their

mathematical thinking well. This competition is a way for students to work as a team to explore some mathematics and develop their communication and team-working skills.

For more information, to register for this free competition and to watch last year's winning videos, visit ukmt.org.uk/miniatures

The deadline for entry to this year's competition is Friday 29 March 2019 so don't delay in getting your team together!

Enter Maths Miniatures at ukmt.org.uk/miniatures before 29 March.

New Chair sought

The term of our current Chair, Prof. Chris Budd OBE, will end in October this year and the process of finding the next Chair is already underway.

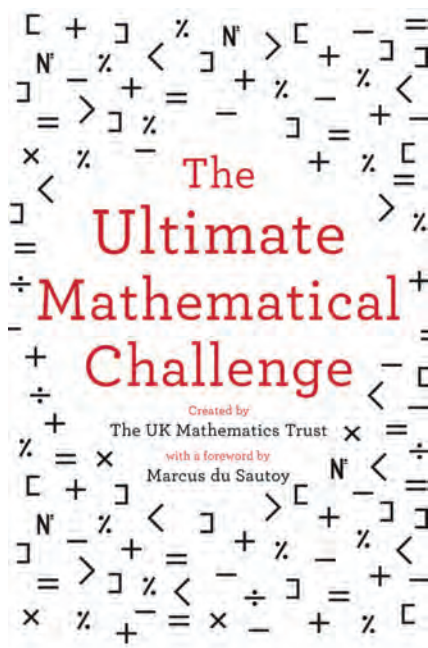
The role of Chair is key to the success of the UKMT. This person

is responsible for leading the charity's trustees to provide a strategic vision for the UKMT and to ensure that the organisation is meeting all its statutory obligations as a registered charity and limited company.

Our trustees wish to attract a diverse group of applicants and

have prepared a role description for those interested in applying for this position; this sets out the duties of the post and gives an indication of the required skills, experience and time commitment. You can find this role description on the homepage of our website ukmt.org.uk

Publications snippets



The perfect way to liven up your day, *The Ultimate Mathematical Challenge* has over 365 puzzles to test your wits and excite your mind. From starter puzzles to perplexing Olympiad problems designed to stretch even the strongest mathematicians, this book is an ideal way to get your brain into gear and feed it with the challenges it craves.

Specially chosen from our catalogue of competition materials, most of these problems can be tackled using no more than a little numerical knowledge, logical thinking and native wit.

Including interludes of cross-number conundrums and shuttle challenges, space for working out and a handy glossary of mathematical terms, this book has everything needed to provide intriguing problems all year round.

The Ultimate Mathematical Challenge is published by HarperCollins and is available from all good book stores and through Amazon.

We very much hope it will raise the profile of our activities among the general population and draw attention to the wide range of competitions that we offer to schools.

Don't forget that we also publish a number of high-quality books on a range of mathematical topics.

The Ultimate Mathematical Challenge is available on Amazon and in all good book stores.

See shop.ukmt.org.uk for more information about our own publications.

Don't miss out on this year's Junior Mathematical Challenge

Help develop your students' problem-solving and reasoning skills by taking part in the Junior Mathematical Challenge on Tuesday 30 April.

The closing date for entry is fast approaching - so act now to make sure you don't miss out!

See our website for more information about the Junior Mathematical Challenge and to download an entry form.

Problems from the Junior Mathematical Challenge 2018

A train carriage has 80 seats. On my journey I noticed that all the seats in my carriage were taken and 7 people were standing.

At Banbury, 9 people left the carriage, 28 people entered it and all seats were taken.

How many people now had no seat?

- A 0 B 7 C 16 D 26 E 35

The diagram shows a partially completed magic square, in which all rows, all columns and both main diagonals have the same total.

What is the value of $x + y$?

- A 10 B 11 C 12 D 13 E 14

4		
	7	y
6	5	x

Which one of these could be folded to make a cube?



New staff

We warmly welcome **Janette Bereza** to the team based in

Leeds. Janette has a masters degree in Teaching and Literature and has joined us as our Communications Officer. She has

stepped in temporarily to answer phone and email enquiries and is responsible for managing our social media and marketing.

Annual student poster competition

Can your students design a poster to advertise next year's Mathematical Challenges?

Entries are accepted from teams of students or from individuals, and the competition is open to all school-aged children.

The winning poster will be reproduced and sent to all UK secondary schools and colleges with the autumn newsletter.

Last year's poster is shown on the right, and you can see previous posters at www.arbelos.co.uk/ChallengesPosters.html.

Poster competition rules

1. Use A2 paper in portrait orientation.
2. Include the words "UKMT Mathematical Challenges 2019–2020".
3. Include the following dates:
Senior Challenge
Thursday 7 November 2019
Intermediate Challenge
Thursday 6 February 2020
Junior Challenge
Thursday 30 April 2020
4. Write your name(s), age and school details (clearly!) on the back of the poster. These details should not be written on the front.

The submitted poster does not need to include our logo, or the logo of our sponsor—these will be added to the winning poster.

We regret that we are unable to accept electronic entries and we cannot return posters.

The winning names will be published, and the judges' decision is final.



Last year's winning poster

Please send entries by the closing date of **Friday 29 March** to:

Poster competition,
UK Mathematics Trust,
School of Mathematics,
University of Leeds,
Leeds LS2 9JT

Diary dates for 2019

Mathematical Challenges and follow-on rounds

Intermediate

Thursday 7 February

Grey and Pink Kangaroos

Thursday 21 March

Cayley, Hamilton and Maclaurin Olympiads

Thursday 21 March

Junior

Tuesday 30 April

Junior Kangaroo

Tuesday 11 June

Junior Mathematical Olympiad

Tuesday 11 June

Senior

Thursday 7 November

Senior Kangaroo

Friday 29 November

British Mathematical Olympiad Round 1

Friday 29 November

Other events

Team Maths Challenge

Regional Finals

February-April

Senior Team Maths Challenge

Regional Finals

November-December