

Problem Group Chair - The Intermediate (Cayley, Hamilton, MacLaurin) Olympiads

Volunteer role summary (April 2022)



United Kingdom
Mathematics Trust

Overview

Problem groups are responsible for compiling competition papers and ensuring that they are challenging and enjoyable for young people while widening their mathematical education. This involves moderating submitted questions and choosing the most appropriate for the paper.

Role

The Intermediate (Cayley, Hamilton, MacLaurin) Olympiads:

Of the thousands upon thousands of pupils who sit the Intermediate Maths Challenge, around 600 top scorers are invited to take part in each of the Intermediate Olympiads:

- Cayley (Year 9 in England; equivalent age groups in other nations)
- Hamilton (Year 10; equivalent age groups in other nations)
- MacLaurin (Year 11; equivalent age groups in other nations)

Each Olympiad is two hours long and consists of six problems requiring full written solutions.

The Chair will oversee the formation of the three Olympiad papers and their official solutions. In recent years this has been accomplished by:

- Appealing to potential problem authors for submissions
- Compiling a shortlist as suitable submissions arrive
- Sharing the shortlist with the Problems Group, inviting comments
- Chairing the setting meeting, at which the 18 problems across the three papers are fixed
- Finalising the precise wording of the problems in collaboration with the Problems Group and a small number of other 'checkers'
- Liaising with the three Paper Leads (each a member of the Problems Group) to produce official solutions to each paper

Before the group meets, all members are encouraged to work through question submissions and assess their suitability and difficulty through constructive comments. As chair you will have access to the group email and will send the submitted questions to other members of the problem group, for their perusal prior to the meeting. You may receive some queries from other group members through email.

Sometimes problems are better placed in alternative papers so you may also wish to liaise with other problem group chairs to share ideas.

You will chair the members of the problem group in a confidential setting to discuss the submitted questions and, as a collaboration, decide on the final questions for the papers. You will then communicate this final decision to the UKMT head office, in order that the papers can be printed.

As chair of the problem group you may also be asked to consider leading the marking events, due to your knowledge of the questions set.

Location and Availability

Creating questions, working through examples and answering emails, prior to the meeting, can be done at your convenience at home.

If you decide to lead a marking weekend, this may also involve marking queries in the lead up to a marking weekend for the relevant competition paper.

Skills and experience

- Willing to provide a safe and inclusive environment.
- Dedicated to safeguarding procedures.
- An inspiring and enthusiastic Mathematician.
- Someone who enjoys setting and solving Olympiad mathematical problems.
- Experienced in assessing the suitability of mathematical problems to the intended audience.
- Someone with strong organisation and communication skills.
- Able to work remotely and inspire a small problem team.
- Positive with a flexible approach.
- Interested in presenting mathematics material using LaTeX/ Overleaf.
- Comfortable working with highly confidential competition material.

About the UKMT

Further information on what UKMT does can be viewed [here](#).

All policies of the trust can be found [here](#).

Next Steps

Please send a CV and Covering Letter to volunteering@ukmt.org.uk. Applicants will be screened on a rolling basis; early application is encouraged.

Should you have any questions or require adjustments to the application process please contact volunteering@ukmt.org.uk.