KINGS-EXETER MATHEMATICS COMPETITION 2013

Do you enjoy Mathematics?
Are you creative?
Want to share your passion with others?
This could be the competition for you!

The Kings-Exeter Mathematics Competition offers young mathematicians the opportunity to share their love of the subject in an interesting and engaging manner. By taking part, students will develop their ability to communicate and explain mathematics whilst expressing their creativity. The winning team from the South West will meet with their counterparts from London at an awards ceremony, where they will present their work to the Minister for Education.

Eligibility

The competition is open to teams of pupils from Years 10 and/or 11. Teams should be made up of 3 or 4 pupils. Schools may enter more than one team.

Registration

Schools must register interest by 30 September 2013, and inform us of how many teams the school intends to enter. Please send this expression of intent to kburnham@exetermathematicsschool.ac.uk with Maths Competition in the subject line. This email may also be used for any queries you have about the competition.

The Competition Task

Teams should submit a video lasting 5 minutes or less, in which they explain one of the famous mathematical problems listed below. The video should include:

- a clear explanation of the problem
- a clearly explained solution
- an extension, application, or generalisation

While their investigations may be guided by their mathematics teachers, the explanations and the video must be pupils' own work and expressed in their own words. Entries will be judged by a team from the Mathematics Department at Exeter University, and teams who are shortlisted for the prize may be asked to answer questions from the judges about their presentation. The winners will present their video to the Secretary of State for Education, the Rt Hon Michael Gove MP, and assorted guests, and will answer questions posed by the audience.

One of the following problems must be selected:

- The bridges of Königsberg
- Finding all Pythagorean triples
- Pascal's problem of points
- Bézout's buckets and ponds
- Egyptian fractions

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Criteria

Entries must provide clear evidence of

- mathematical understanding
- coherent explanation and in particular coherent mathematical argument

Appropriate use of visual aids to aid communication will be credited, but entrants should note that they will be judged on the quality of the mathematical explanations, and on their ability to offer a well structured presentation, not on innovative or expert video techniques. Entries of more than 5 minutes will be disqualified.

Submission and Closing Date

Videos should be submitted by 23 October 2013 using YouTube. Details on submission will be provided following registration of entries.

Judging and Awards

The winners and runners-up will be notified on 31 October 2013. Please ensure that we have a contact email address for an individual who will be able to check their email on that date.

The winning team will attend an award ceremony with the Secretary of State for Education, the Rt Hon Michael Gove MP at the Department for Education, Sanctuary Buildings, Great Smith Street, London SW1P 3BT on 7 November 2013. Winners will be invited to show their video and answer questions on its content and on how they approached their task.

KEY DATES

30th September: Deadline for registering a team

23rd October: Deadline for submitting a video

31st October: Results announced

7th November: Prize Giving and Presentations in London

Good luck!

The Kings-Exeter Team