

June 4, 2020

The Mathematical Association of America, in partnership with Art of Problem Solving (AoPS), is excited to announce the first-ever **Cyberspace Mathematical Competition (CMC)**. The CMC is a fun, high-level online invitational international contest for high school students, with teams of up to 8 people from each participating country*. The actual contest will take place on **July 13-14**, and consists of 4 essay-proof problems per day, with a 5-hour time limit. Registration (by invitation) will begin on July 1.

The CMC's mission is to provide a fun summer opportunity for the world's top young math students to engage with challenging and interesting problems, and meet---at least virtually---peers from other countries. AoPS will provide a robust platform that will facilitate the contest itself, along with forums for socializing, and other mathematical activities during the course of the CMC.

Please read the FAQ below for more information. *If you are interested in registering a team (or appointing another leader to do so), please fill out the form at this [link](#) as soon as possible. It is important for us to get a sense of how many participants to accommodate.*

We hope to “see” you soon at the CMC!

--CMC Organizing Team

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FAQ

- *Is the CMC “the online IMO?”* No, the CMC is not an IMO event. We consider the CMC to be a fun way to practice for the actual IMO, but it is in no way an IMO or a substitute for the IMO.
- *How hard are the problems?* The contest consists of 8 essay-proof problems, with two problems in each of the areas of Algebra, Combinatorics, Geometry, and Number Theory. Each day there will be 4 problems arranged in roughly increasing order of difficulty, with at least one problem substantially easier than an “easy” IMO problem, with the other problems comparable to the IMO in difficulty.
- *How are teams selected?* Each country will have one designated leader, approved by the CMC organizers. In principle this is someone involved in the national mathematical olympiad organization of that country. The team itself will be selected by the team leader, using whatever criteria are convenient for them. The participants must be at most 19 years old at the time of the contest, and are not full-time students in post-secondary schools.

- *Why 8 people per team?* We would like to try to expand opportunities to participate in high-level math contests. In particular, we are requiring every team with 6 people to have at least one female member, and every team with more than 6 people to have at least two female members. Depending on the number of countries that register, we may increase team sizes or possibly allow multiple teams per country.
- *How do participants take an online contest? How do you ensure security?* The team leaders will have translated questions into the appropriate language of the participants, who will sit for the exam each day during a specified 5-hour time window that depends on location. They will use a scanner or a phone or computer camera to save their work, which will get sent to their team leader to distribute to the coordinators. They will be “proctored” or “invigilated” by a parent or guardian who attests that the submitted work is that of the participant alone. In other words, this is an event that is built upon trust.
- *Do the participants and leaders need special equipment?* As an online contest, everyone will need, at a minimum, a smart phone with a camera that can download and upload images; ideally a computer or tablet with a stable internet connection as well. Additionally, each participant (and the leader and co-leaders, if there are any) will need an account at aops.com. This can be done in a few seconds.
- *How will papers be graded (“marked”)?* We will have an innovative, trust-based, open system where the CMC problem coordination team works collaboratively with the team leaders to ensure a speedy and accurate evaluation of participants’ work.
- *Besides the two-day exam, what other activities or events will take place?* Some formal activities (for example, translation) will begin as early as July 10 and the final marking may not be done until July 21, approximately. In between, there will be various activities for participants and leaders, but we have not settled on a schedule. We welcome suggestions! As an online event, people will not be able to mingle and socialize in conventional ways. But we hope that our forums for discussion and collaboration will allow for really meaningful interactions between participants, mathematical and otherwise.
- *Will there be a cost to participate?* The CMC is free. This is a volunteer effort, intended to provide a fun summer experience. Since no one is traveling and needing food and lodging, it can be done inexpensively, and we are relying on the efforts of many dedicated and talented volunteers along with generous support of many AoPS staff members.

* 'Country' refers to a country or in some exceptional cases to a territory/geographical region.