



MATH MODELING CONTEST ADVISOR GUIDE

COMAP

comap.org
info@comap.org



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COMAP Math Contest Advisor Guide: Quick Tips for Advising a Team

As an organization that runs several [math contests](#) every year, we know it can be overwhelming to figure out where to start. So we created this quick-start guide to help math contest advisors who participate in our COMAP contests have a successful and enjoyable experience from start to finish.

The Role of Math Contest Advisor

Advisors are the glue that holds the team together during a math contest. The advisor acts as the main point of contact for the team, prepares the team to compete, and helps ensure the team follows the contest rules and regulations.

So, who can advise a team?

For the HiMCM©/MidMCM contests, any faculty or staff member at the students' school can be an advisor! The advisor does not have to be from the mathematics department, and they can also serve as the faculty/staff advisor to multiple teams competing in the contest.

For MCM©/ICM©, a faculty or staff member may advise a team, but a student on the team can also be an advisor.



How to Get Started

Getting started with COMAP contests is easy! Once registration for each contest opens, the related page on our website will have all the information you need. This is a quick look at how to get started.

Form Your Student Team

Depending on the contest, teams can have a maximum of three or four students. All students on the team must be enrolled at the same institution at the start of the contest. This is the first (and most important) part of the preparation process, along with having an advisor for the team.

Get Prepared

We encourage advisors and students to prepare for the contest by viewing previous years' problems and solutions, as well as relevant contest articles, at www.mathmodels.org. The problems are free to view, and the solutions and articles are available to mathmodels.org members.

You may want to take a look at the structure of the Outstanding papers in terms of organization and presentation for inspiration as you prepare yours. But don't be intimidated by these papers! All levels of submission are accepted including incomplete or partial solutions. Our contests are not a pass or fail exam; it's more about the process, so just do your best!

Register Your Team

Go to our [contest page](#) to locate the contest you are participating in and follow the instructions for registering your team. Once payment is made your registration is complete, you are ready to go!



7 Tips for a Successful Math Contest Experience

Are you ready to have an awesome COMAP math contest experience? These tips will get you starting down the best path.

1. Choose the Right Problem

There are multiple math problem options in COMAP's HiMCM/MidMCM and MCM/ICM math contests, so it is always a good idea to ensure you're choosing the right problem. Look at problems from previous years to understand the choices you will have when the contest begins. Understand the general differences between the problem choices, both in terms of the mathematics involved and the topics addressed.

2. Go Virtual

Remember that students do not have to be physically together at school and are not required to use the full range of contest days. The problems are designed for teams to complete a solution within 36 hours of work. Students may work together in person, virtually, or a combination of both.

3. Understand the Rules

Be sure to review the full rules for each contest before registering. Our contests are true student competitions, and students are expected to develop all of its substantive analysis and solution without the help of others. So during the contest period, students can only work with fellow team members. Teams may not seek help in obtaining answers, ideas, or information, or in locating appropriate resources, from any persons outside of their team including their advisor (unless it is a student advisor in the MCM/ICM), other teachers, other students, and/or experts or professionals in a field relevant to the problem.

4. Cite Your Sources

Teams may use any inanimate source of data or materials: computers, software, references, websites, books, etc. All sources must be credited using in-line documentation, footnotes, or endnotes, as well as a full bibliographic citation in a Reference section.



5. Review, Edit, and Proofread Your Work

Details matter! The best contest papers present complete and logical analysis in an organized and clear manner, above and beyond simply addressing the requirements. Your goal should be to make sure your paper is easy to read, easy to follow, logical, and comprehensive.

Some of the most successful papers include sections that address assumptions with justifications, modeling process(es), results of modeling/analysis, strengths and weaknesses, sensitivity, and conclusions. And don't forget to use in-line documentation, footnotes, or endnotes with associated references when necessary.

6. Double-Check Team Information

Be sure to carefully check your team number as it is not uncommon to mistype or transpose a number. Advisors should ensure they spell team members' names correctly when registering, as certificates will reflect these names. The order of the student's name has no bearing or importance on participation. In the eyes of COMAP and the contest directors all team members are equal.

7. Stay in the Loop

Be sure to check the [COMAP website](#) for any updates during the contest. It's also a good idea to follow us on social media for real-time updates: [Twitter](#), [Instagram](#), [Facebook](#), [LinkedIn](#), [Weibo](#).



About Our Math Contests

[The Mathematical Contest in Modeling \(MCM\)](#)[®], an international contest for high school students and college undergraduates, challenges teams of students to analyze, model, solve, and present solution reports to an open-ended application problem. Contest teams of up to three students address one of three problems choices: continuous mathematics, discrete mathematics, and data insights.

[The Interdisciplinary Contest in Modeling \(ICM\)](#)[®] is an extension of the MCM designed to develop and advance modeling and problem-solving skills in an interdisciplinary scenario to broaden both the focus of the problems and the methods of solution. Contest teams of up to three students address one of three problems choices: operations research/network science, sustainability, and policy.

[The High School Mathematical Contest in Modeling \(HiMCM\)](#)[®], an international contest for high school and middle school level students, provides teams of students with the opportunity to work together to demonstrate and improve their analysis, problem solving, modeling, and writing skills. Teams of up to four students address one of two real-world application problem choices.

[The Middle Mathematical Contest in Modeling \(MidMCM\)](#) is an extension of the HiMCM designed to provide middle school/level age students 14 ½ years of age and younger with a modeling and problem-solving opportunity. Teams of up to four students apply middle school level mathematics to model, develop, and communicate a solution to a real-world problem.