



Official Rules & Guidelines—2016 Challenge

This competition is void where prohibited by law. All decisions by M³ Challenge judges are final.

Eligibility

High schools in the U.S. (including US territories and DoDEA schools) are eligible.

A maximum of two (2) teams per school, each consisting of three (3) to five (5) students and one (1) teacher-coach, may register for the M³ Challenge.

Teams must be comprised of high school juniors and seniors from the same school; absolutely no exceptions will be made to allow underclassmen. **For M³ purposes, your high school is the school name that will appear on your diploma.**

Dual enrollment programs, magnet programs, and other academic or training programs that draw in students from more than one high school for a subset of classes are only eligible to form teams if they comprise a separate high school from which the student will graduate.

Homeschool and cyber school students may either form their own teams or request to participate on their local public high school team. All efforts to contact the public school district in which they reside are up to the home or cyber schooled student. A signed [Homeschool Affidavit Form](#) is required for each home schooled student participating in the Challenge. A signed [Cyber School Affidavit Form](#) is required for each cyber schooled student participating in the Challenge.

International and exchange students may participate in the Challenge provided they are officially enrolled in an eligible team's high school at the time of registration and through completion of the Challenge.

Children, grandchildren, and siblings of employees, officers, directors, or trustees of SIAM or The Moody's Foundation are not eligible to participate in Moody's Mega Math Challenge.

Rules

Challenge weekend 2016 is February 27 at 12:00 a.m. to February 28 at 11:59 p.m.**EST** – please make sure you are converting your local time to EST to plan your work time.

During Challenge weekend, once any member of your team (coach or student) downloads the problem, your team has exactly 14 continuous hours to submit a solution – this is a firm deadline and the clock cannot be paused. You should download the problem with at least 14 hours before the firm end of Challenge weekend in order to have use of the full 14 hours allowed.

Team members may not discuss any aspect of the problem with, nor seek help from via any means or method, the coach or anyone other than their teammates on Challenge day. Any attempts to get help from human sources—in person or via any medium—will result in disqualification. This includes attempts to seek assistance through interactive “help” websites or social media. Monitoring of the Internet is continual during Challenge weekend and violators will be disqualified. Seeking assistance outside of the team grossly violates the spirit of the Challenge.

Teams may identify themselves with their team number ONLY. Having any other identifying information included will exclude the team from possible Finalist status.

A team may use computers, software packages, books, reference works, or any other inanimate sources, all of which must be properly referenced within the solution paper.

Teams can work from any location they choose.

Teams should act with integrity. Unethical or disrespectful submissions will be flagged for follow-up. Coaches must impress upon all team members the need for honesty and integrity. In addition to disqualification, a letter of admonition will be sent to the principal and the coach of any school whose students are involved in unethical or disrespectful submissions.

All decisions made by the judges are final and are not subject to challenge or appeal. There is no passing score and numerical scores will not be assigned.

The team's complete entry and solution paper will not be returned to the coach or team members and will become the sole and confidential property of Moody's and SIAM. The coach and team members agree to permit Moody's and SIAM to use any information contained in our team's entry for publicity purposes in any media.

It is the sole responsibility of the individual schools to (a) provide any specialized staff or assistance for team members with special needs to participate as required by law and (b) provide and be responsible for any transportation of the team members to Challenge events. Neither SIAM nor Moody's is responsible for any risk, injury, or damage related in any way to any student's or team's participation in the Challenge.

By registering, you agree to receive the important emails from Moody's Mega Math Challenge via MailChimp, the email communication service used by the Challenge. Please whitelist M3challenge@siam.org in order to receive these emails.

The top six Finalist teams in the Challenge will be invited to Moody's Corporation headquarters in Manhattan to present their papers for the final confirmation phase of judging (see [“Important Dates”](#)). Presentations by entire teams are a **requirement** for winning one of the top six



prizes. Teams that are unable to present their papers or are unable to have all members present for the final event, are not eligible for one of the Finalist prizes. Exceptions may be made for medically-documented reasons, but are at the discretion of the organizers.

Registration Checklist

Review the [Eligibility](#) requirements

Your team's teacher-coach must complete the team's registration online, and will need:

- High school name, full address, phone number
- Teacher-coach's email address and a back-up email address
- Minimum of three students, maximum of five, all from the same school
- Full names of all students on the team
- Each student's individual email address, gender, and grade
- Lastly, the coach will be asked during the registration process to certify that s/he and all student team members have read and understand the [Eligibility](#) and [Rules](#).

Once your team is registered, all members must verify the accuracy of team data. Certificates are generated from the data exactly as it is entered at registration, or revised by the deadline. Certificates will not be re-issued for mistakes that are overlooked.

Safeguard your team ID # and password, which will be **automatically generated when the teacher-coach registers. Do NOT share your team ID # or password outside of your team, as it allows access to all the information provided for your team.**

Team login – your team will have SHARED LOGIN CREDENTIALS – the team ID # and password is the same for the entire TEAM. Your login credentials allow you to make changes to your team record, affirm parents' consents, see the problem during Challenge weekend, upload your solution paper during your work time, and check status of your paper after you submit.

Once a team is registered, each student must have their parent or guardian login with the team credentials to electronically indicate their consent. All consents must be completed by Challenge weekend. Parents will also be asked to indicate ethnicity of the student at that time, for demographical records, though that is an optional response.

As changes to the team record occur (replacing students, fixing spelling errors, etc.) and are edited via login to the team account, automated emails are sent to confirm changes. No changes to the team record will be allowed after 4:00 p.m. EST on the Monday following Challenge weekend.

Teacher-coaches will be prompted to certify authenticity of their students' work immediately after Challenge weekend, which will be available on the "Authenticate" page behind the login.

Winning students will be required to submit information about their chosen college in order to have their scholarship released. For more information, see required [Consents and Certifications](#).

M³ Challenge will not accept late registrations under any circumstances.

To guard against the possibility of interruptions in Internet service, school closings due to weather or any other extraneous situation, we recommend that teams complete the registration process well in advance of the deadline.

Important disclaimer for teams from M³ Challenge HQ

Moody's Mega Math Challenge, SIAM, and The Moody's Foundation are not responsible for local weather conditions, power or Internet outages, or any other situation or circumstance that would prevent a potential team from registering, or a registered team from fully participating in the Challenge, including preventing the submission of a paper during their selected Challenge work time. No accommodations can be made for teams if such unfortunate circumstances were to occur during registration or at any time during the Challenge.

Guidelines for Teacher-Coaches

Teacher-coaches may be part-time or full-time teachers or administrators employed by the team's high school or by the district in which the high school is located. Exceptions may be made and a part-time or retired teacher or administrator who is still affiliated with the team's high school may serve as coach. In the case of two teams from one school, the same teacher may coach both teams or each team may choose to have different teacher-coaches from the same school.

The teacher-coach is responsible for registering the team correctly and for ensuring that all parts of the registration process are accurate and complete. If possible, teacher-coaches should help prepare the teams for the Challenge using previous problems, winning solutions, and insights from judge's perspectives – all available online in the M³Challenge [Archives](#).

Teacher coaches and team members should take note of and safeguard their team ID # and shared password. It is possible to reset the password at the [login page](#). If any member of the team initiates a reset, the new password will be emailed to all members of the team, replacing the most recent password.

The teacher-coach is responsible for submitting the Authenticity Certification during the week following the Challenge. The teacher-coach will be notified via email that the form is available on the Monday following Challenge weekend. This certification means only that the teacher-coach has had a conversation with the team (or the team captain who speaks for the team) and is able to ascertain to the best of their knowledge that the team worked with integrity, and that the submission is legitimate.

Teacher-coaches are **not** required to be physically with or near the team during Challenge weekend. If you do not plan to be with or near your students during Challenge weekend, please be sure they have their team ID # and password readily available so they are able to participate: login, download the problem, and upload their solution paper.

Teams should act with integrity. Unethical or disrespectful submissions will be flagged for follow-up.

2016 Moody's Mega Math Challenge – Complete Rules and Guidelines



Coaches must impress upon all team members the need for honesty and integrity. In addition to disqualification, a letter of admonition will be sent to the principal and the coach of any school whose students are involved in unethical or disrespectful submissions.

Once the problem has been downloaded, teacher-coaches are prohibited from providing assistance to any team member regarding the Challenge until the Challenge is over. Students must troubleshoot problems on their own; they may not discuss any aspect of the problem with, nor seek help from via any means or method, the coach or anyone other than their teammates during the Challenge. Failure to adhere to this requirement will result in disqualification.

It is the sole responsibility of the individual schools to (a) provide any specialized staff or assistance for team members with special needs to participate as required by law and (b) provide and be responsible for any transportation of the team members to Challenge events. Neither SIAM nor Moody's is responsible for any risk, injury, or damage related in any way to any student's or team's participation in the Challenge.

The teacher-coach of every team that submits a viable solution paper on time and in the proper format will receive an appreciation gift for his or her efforts in helping the team participate, regardless of the team's final standing in the competition. Check out [Tips and Guidance](#), plus the many other [Resources](#) on this site for great suggestions for a successful Challenge weekend.

Solution Paper Preparation Guidelines and Considerations

Format

Solution papers must be typed and in English.

Papers must be in standard 8½ x 11 document format, no longer than 20 single-sided pages in length. **Please use a minimum font size (12) and minimum margins (1 inch all around).**

Each page of the solution paper must contain the team's ID # and page number in the header at the top of the page. For example: Team # 1234, page 1 of 15.

A solution paper must be contained in a **single file** upload and must be formatted as a PDF. No other file types will be accepted. Multiple files contained in a ZIP file or other compressed file format will not be accepted. No supplemental files should be uploaded with your solution paper.

Charts, tables, and other graphics must be embedded into the PDF document.

Content

Organization, conciseness, and clarity of the solution paper are critical.

Provide only your team ID #. Do NOT include any names or other identifying information in your solution paper.

A solution paper should answer all questions posed and have the following elements:

- SUMMARY of results, clearly identified and not more than one page in length, must be the first page of your solution paper. It should be a concise, straightforward explanation of the main results and answer the questions posed, written with minimal use of technical language. Judges will not read past a poorly written summary.
- RESTATEMENT of the problem, and JUSTIFICATION of all assumptions.
- ANALYSIS of the problem, DESIGN of the model, and JUSTIFICATION of the modeling used.
- DISCUSSION of how the model can be tested for accuracy, stability and sensitivity to assumptions.

Citations

References and citations should be in the body of the paper in-text, as well as listed in a bibliography or references page at the end of the paper. No particular citation style is required, but citations should be consistent throughout.

Teams are required to provide citations to original source materials whenever they make use of a direct quote, an image or figure, basic fact, or an idea from a source.

Code

If you write code as part of your solution paper or an appendix (not required), you should explain the methodology, but do not include the code in the solution paper. Judges will not spend time reading and interpreting code submissions.

Submission of Record

You may upload your solution paper at any time from the start of your Challenge time until your deadline. Each time you upload, your most recent paper will entirely replace your previous upload. Your last upload prior to the deadline will be your entire submission of record; it must be in the form and contain all aspects of your paper – this is the submission on which you will be judged.

Partial solutions are acceptable

The judges are particularly interested in each team's approach and methods. No supplemental materials will be accepted once you have submitted your final solution paper before the deadline. As a last resort, if your upload attempts are problematic, you may email your submission prior to the deadline as an attached PDF file.



Authenticity

By uploading a solution paper during Challenge weekend, you are guaranteeing that the work is wholly your own. All suspected instances of plagiarism will be taken seriously and investigated. Plagiarism will result in disqualification. The M³ Challenge uses CrossCheck to vet submissions for possible plagiarism.

Winning Teams

The top six teams in the Challenge will be invited to Moody's Corporation headquarters in Manhattan to present their papers to a panel of professional applied mathematicians in the final confirmation phase of judging. Presentations by entire teams are a requirement for winning one of the top six prizes. Teams that are unable to present their papers or are unable to have all members present for the final event, are not eligible for one of the top six prizes. Exceptions may be made for medically-documented reasons, but are at the discretion of the organizers. An awards ceremony will immediately follow the presentations. Typically this will be on a Monday in late April (check [Important Dates](#) page).

The top six teams will receive funds to help pay for travel and related expenses incurred to get to and from the final event. For more information, see the M³ Challenge [Team Travel and Expense Reimbursements Guidelines](#).