MathWorks Math Modeling Challenge

A program of SIAM

A CONTEST FOR HIGH SCHOOL STUDENTS

M3Challenge.siam.org

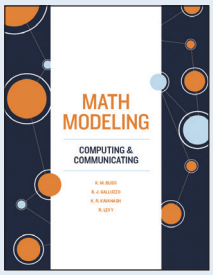
m3challenge@siam.org

PREPARE to MODEL!

FREE RESOURCES at *m3challenge.siam.org/resources*

Read the Modeling Handbooks

Written by M3 problem writers and judges, Math Modeling: Getting Started and Getting Solutions is a terrific introduction to the modeling process. Math Modeling: Computing & Communicating goes beyond the basic process of mathematical modeling to technical computing using software platforms and coding.



Practice your skills

Sample and practice problems will help you prepare for the Challenge problem.

Watch the Math Modeling video series

Seven 2–3 minute episodes that provide instruction and insight about each component of the modeling process.

Access free software

You can request MathWorks' MATLAB or Wolfram software for free! Look for the "Access Software" and "Learn Technical Computing" tabs under RESOURCES on the website. Use of software, coding, and technical computing is not required to participate or win, but using them makes you eligible for the M3 Challenge Technical Computing Award.

Teach Modeling using the GAIMME report

"Guidelines for Assessment and Instruction in Mathematical Modeling Education" (GAIMME) is a great resource for teacher-coaches!

Peruse the "Tips and Guidance" webpage

Suggestions from past participating students, coaches, judges, and from organizers of the Challenge.

Technical Computing?

Teams that use a programming platform other than spreadsheets (Excel or other) in an outstanding way will be eligible for an additional distinction—the M3 Challenge Technical Computing Award.

Learn Technical Computing is a tab under RESOURCES on the website where you can get direction on using MATLAB software to possibly qualify for the technical computing award.

More Winning Strategies

Check out the archives

m3challenge.siam.org/archives

Archives feature past Challenge problems, winning solutions, judge perspectives, and presentation videos organized by year.

Go on a YouTube binge

youtube.com/user/SIAMConnects

Visit "M3 Challenge" playlist on SIAM's YouTube page to familiarize yourself with all aspects of the Challenge.

TEACHERS AND STUDENTS: Take steps to ensure greater success in M3 Challenge!

CHALLENGE WEEKEND:
February 25 – 28, 2022

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MathWorks Math Modeling Challenge

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$100,000+ in SCHOLARSHIPS

Challenge Weekend

February 25 – 28, 2022

- High school juniors and seniors and sixth form students
- Form a team of 3–5 students with one teacher-coach
- Choose your 14-hour worktime and location
- Submit a solution to the open-ended modeling problem
- Participation is free and entirely internet-based
- Additional prizes available for teams submitting code
- Finalist teams get all-expense paid trip to New York City

REGISTER

BY FEBRUARY 18, 2022:

M3Challenge.siam.org

During Challenge weekend, an open-ended problem is revealed to high school teams and they work together, under time constraints, using the math modeling process to represent, analyze, make predictions and otherwise provide insight into that real-world problem's questions. High schools in the U.S. (including U.S. territories and DoDEA schools) and schools with sixth forms (age 16–19) in England and Wales are eligible to participate in M3 Challenge 2022.

The National Association of Secondary School Principals has placed this program on the NASSP National Advisory List of Student Contests and Activities since 2010.

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