

MAΘ 2024 National Convention

Las Vegas, Nevada—July 7-12, 2024

Have you ever been to LAS VEGAS, Nevada? The 52nd Mu Alpha Theta National Convention, hosted by Kim Woolfenden (FL)- MAO Convention Coordinator and FAMAT Treasurer, with test coordinator Will Frazer of Buchholz (FL), will be held July 7-12, 2024, at the Alexis Park All Suites Resort in Las Vegas, Nevada. Our Wednesday excursion will be a choice of The Beatles Love by Cirque du Soleil or The Sphere.

The registration fee will be \$600 per participant registered prior to May 1, 8PM EST. The site will shut down on May 1st at 8pm Eastern Std Time. However, IF you are 100% registered and your payment is postmarked (yes, we will check) ON or BEFORE April 24th, you may register for \$575 each. NO changes after your postmark date or you pay full price. No registrations will be accepted after 8PM, EST on May 1. **All payments must be postmarked on or BEFORE May 1.** The registration fee includes Convention activities, a T-shirt, and meals starting with Sunday Dinner to Thursday dinner (no dinner on Wednesday, you are on your own for the outing on Wednesday).

You will be registering and paying for your own rooms. You may put up to 4 (5 if they understand and accept that the 5th is a pull-out couch) students per room. The link will be available in December 2023. If you have a “weird” number of students, let me know and I will try to hook you up with others in the same situation.

All competitors must be members or associate members of Mu Alpha Theta. **EVERYONE** who attends MUST be REGISTERED. No “Visitors”.

The Convention will include Math competitions at three levels of Individual tests and ciphering, as well as Topic Tests, Poster, Chalk Talk, the Interschool Contest and the School Bowl. Each school is invited to bring competitors in **Mu (Calculus), Alpha (Pre-Calculus), and Theta (Algebra II/Geometry) divisions.**

MAΘ Convention Online

All participant information must be entered online at www.mualphatheta.org > Chapter Log In > Convention Registration. Make sure your e-mail is correct. Please check regularly for information pertaining to the Convention or specific to your school.

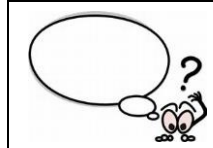


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**REGISTRATION DUE DATE**Registration *postmark date:* May 1, 2024**Sorry, NO late registrations can be accepted**

Snail mail:

kids – pgs 12, 13a or b

and 15 & med card

adults – pgs 14 a or b,

and 15 & med card

Stapled together in

order, with a copy of

the medical card

F&B, to:

The National Office

Address (on each

form.)

INFORMATION DUE DATES all 8PM ESTMedical forms (snail mail) *postmark date:* May 1, 2024Test Sign Up online **final online date:** May 1, 2024Travel Information online **final online date:** May 1, 2024**Rooming Information online final online date: May 1.**

Chalk Talk ONLINE grading due June 8, 2024 8pm EST

1. Adult/Sponsor/Chaperone Duties

In addition to sponsoring students from your own school during the Convention, proctoring and other duties will be assigned. You can sign up for preferred duties online. You may e-mail Kim if your preference job is not listed. **Any non-student, participating or attending the Convention will be considered a chaperone and should be registered as such.** No one attends for free. Everyone must be registered.

2. Medical Forms/Participation Forms/Media Forms

Each Convention attendee, including sponsors and chaperones, must complete and submit a medical and liability form. ***Forms must be notarized & a copy of the front & back of the medical card must be attached.***

Sponsors are encouraged to keep a second copy of this form for their students, in case of illness or injury. Students or adults with no health insurance who attend the Convention must agree to cover 100% of costs for needed emergency medical care.

3. Extended Stays - Coming early or staying late?

Same rate applies, just add the days to your bill for up to three days before or after the Convention.

Call the **reservation office at 800-582-2228 use Group Code: MATH724**

Online at [Mu Alpha Theta Room Block](#) ask for Damika You should get an invoice and all confirmation numbers and the TOTAL amount of the bill. YES, it can be paid by school check. POSTMARK 5.1.2024

or <https://reservations.travelclick.com/85179?groupID=2410506#/guestsandrooms>

4. Rooming Assignments – it is up to you. You will register and pay for your Students and Adult rooms.

Put your reservations under your school names. You can add the actual kid or adult names later.

5. Registration/Check-out time

Registration will start at 3:00 P.M. on Sunday July 7, unless you are coming in early. Checkout time is no later than 11 A.M. on Friday, July 12, unless you booked your rooms for up to 3 days later.

6. Transportation to and from McCarran International Airport (LAS)

Shuttle service TO the hotel from the airport will be provided on July 7 from 9am to 2pm. Schools arriving on other dates, or from other locales, must make their own arrangements. Shuttle service from the hotel TO the airport will be provided on July 12, 4am-11am. Please enter the arrival time into LAS VEGAS and departure times online with all other forms, even if these hours are outside the times listed above.

Schools departing from other locales or other dates must make their own arrangements. If you are coming by bus, or driving, etc. PLEASE enter that information.

7. Excursion on Wednesday. You will select The Beatles Love by Cirque du Soleil or The Sphere.

As long as you have an adult Chaperone at each venue you may split up your group.

Wednesday dinner is on your own.

Online Registration of Participant Information

All of the following information: *participant registration, topic test registration, chalk talk participants, other contest participation sign-up, t-shirt sizes, vegetarian preferences, sponsor duties preferences, transportation information, and rooming requests* **will be entered online** at www.mualphatheta.org > Chapter Log In > Convention Registration. You may want to go online and see required information before submitting it. Entering participant information can be done online beginning February 1, 2024. However, remember that this does not take the place of sending your registration forms with payment.

You will need to accumulate the following information to register participant information online:

(See attached "interactive" google worksheet)

1. Participant registration: Last name, first name, division (sponsor, M, A, T), t-shirt size, room lists, (yes, even though you are paying for rooms, we must facilitate placement in the hotel. Have extra kid(s) and want to share rooms with another school? Let me know, I will give you information), and vegetarian requests. (If anyone needs special meals, possibly extra charge. E-mail Kim at woolfmath@aol.com).
2. Topic test registration: Total number of students taking each test.
3. Names of Chalk Talk participants and level
4. Participation in other optional contests
5. Name of Student Delegate
6. Sponsor job preferences

*****BE AWARE*** ALL ROOMING INFO MUST BE COMPLETED ONLINE BY MAY 1, 8pm Eastern. OUR INFO HAS TO BE TURNED INTO TO THE HOTEL THE DAY AFTER THAT. YOU WILL NOT BE ABLE TO MAKE CHANGES ONLINE AFTER MAY 1.**



The Beatles LOVE show is CLOSING Permanently on 7.7.24. We will be attending KA instead.

Another Great Cirque Show.



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Opening Ceremony Picture or Logo – Submit a picture of your MAΘ chapter (members, school, activity, etc.) or school/chapter logo in jpg format to woolfmath@aol.com and info@mualphatheta.org by June 1, 2024.

Sponsors- Remind Text Group – All sponsors from each school **must** join the Remind text group. To join, text @2024mao to 81010.

COMPETITION INFORMATION

Each student is to be registered in one of the three levels defined below.

THETA level is for associate or full members who have completed Geometry and/or Algebra II but have not been enrolled in a higher-level mathematics course.

ALPHA level is for full members who have completed math courses above Algebra II but have not been enrolled in Calculus.

MU level is for full members who have completed a Calculus course.



TYPES OF COMPETITIONS

A student *may* take a test at a higher level but NOT at a lower level.

The **OPEN** level topic tests are not limited to students in any particular level. However, students should carefully examine test content descriptions before making their selections.

Individual Tests: (T, A, M)—***NO Calculators***

- 30 multiple choice question written test covering all topics applicable to the level
- 60-minute time limit
- Scoring will be 5 points for each correct answer, 1 point for a blank, 0 for an incorrect answer
- Ties will be broken by the sudden death method (first missed answer).
- Trophies or medals or plaques will be given to places 1-20 for each division.

Topic Tests: (T, A, M, O)—***NO Calculators***

- 30 multiple choice question written test.
- Descriptions of topic tests are included in this packet.
- 60-minute time limit, except History of Math which has a 30-minute time limit.
- Scoring will be 5 points for each correct answer, 1 point for a blank, and 0 for an incorrect answer.
- Ties will be broken by the sudden death (first missed answer) method.
- Trophies or medals or plaques will be given to places 1-15 for each test.

Ciphering: (T, A, M)—***NO Calculators***

- 12 open response questions administered individually.
- 3-minute time limit per question.
- Scoring - twelve points for a question answered correctly in the 1st minute, eight points in the 2nd minute, and four points for a question answered correctly in the 3rd minute. A sliding scale will be used.
- Trophies or medals or plaques will be given to places 1-20 for each division.



Gemini: (T, A, M)—***NO Calculators*** (Does not count for Sweepstakes)

- 30 multiple choice question written test that 2 people work on together. 60-minute time limit.
- Administered to all students NOT in school bowl. (you must be in the school bowl if you have a 3 or 4-person team)
- Scoring will be 5 points for each correct answer, 1 point for a blank, 0 for an incorrect answer.
- Ties will be broken by the sudden death (first missed answer) method.
- Singletons (only 1) from different schools can form a 2-person team, otherwise, **SAME school teams**.
- Trophies or medals or plaques will be given to the top 10 teams in each division. One trophy per school.

School Bowl: (T, A, M)—***NO Calculators***

- Top 4 individuals from each school per division as determined by the sum of their individual test score and their ciphering score compete as a team.
- 12 open response questions administered one at a time.
- Time limit - 4 minutes per question with points awarded depending on the minute in which the question is answered correctly.
- 16 points for questions answered correctly in the 1st minute, 12 pts in the 2nd minute, 8 pts in the 3rd minute, and 4 pts in the 4th minute.
- A sliding scale will be used.

Division Awards

These will be given to the top 10 schools in each division by combining the top 4 individuals' scores (determined by the sum of their individual test score and their ciphering score) with their bowl score.

Small awards will also be given to the 4 individuals on the top 10 teams.

Interschool by AoPS! — No Calculators allowed. "The interschool is written by AoPS. It is not a traditional math competition test. The exact content and format will be revealed at the competition."

Each team consists of up to 12 members, whether they are students or sponsors. The highest scoring team (that is eligible) for each school counts for sweepstakes. A team is eligible for sweepstakes if it meets either of the two conditions below:

- All members on a team are students from the same school.
- All students from a school are on a team.

As an example, School A has 33 students and 3 sponsors, school B has 11 students and 1 sponsor, school C has 8 students, and D has 4 students.

- School A has 2 teams of 12 students each, and 1 team of 9 students and 3 sponsors. The first two teams are eligible to count for sweepstakes, the team with sponsors is not.
- Alternatively, school A can field 3 teams of 11 students each, with the sponsors joining another team or sitting out. All 3 teams are then eligible.
- School B has 1 team of 11 students and 1 sponsor. This team is eligible to count for sweepstakes.
- Schools C and D combine forces to make a team with their 12 students. This team is eligible to count for sweepstakes for both schools, and both schools will receive the same t-score.

Trophies will be given to the top 10 teams. No use of electronics or reference materials will be allowed. Sponsors are encouraged to form their own team(s) and compete against the students.

Speed Math— NO Calculators (Not part of Sweepstakes)

- 15-minute test with 25 open response problems (NO **calculus** or **trig**)
- The answer should be written in the space provided.
- All problems require exact answers.
- Fraction answers may be given as improper fractions, mixed numbers, or exact decimals unless otherwise specified.
- You will receive 1 point for each correct answer.
- No penalty for wrong answers or empty answer spaces.
- You may write on the test paper.
- Students can take EITHER Mental Math or Speed Math, but not both.
- Each school can have a MAXIMUM of 3 participants (unlimited number of sponsors may participate)
- Trophies or medals or plaques will be given to places 1-10 for students and 1-10 for sponsors.

Mental Math— NO Calculators (Not Part of Sweepstakes)

- This is an 8-minute test with 40 problems.
- ALL PROBLEMS MUST BE SOLVED MENTALLY.
- There is to be NO writing, stray marks or “write-overs”, on the test. The FINAL answer only.
- Writing other than the final answer(s) will result in disqualification.
- **Use** a blue or black non-erasable pen only. YOU MUST BRING this to the test. (Pens NOT provided)
- No erasures may be made to an answer once written.
- All problems require exact answers.
- You will receive 5 pts for each right answer, 1 for each question skipped, & 0 for each wrong answer
- Students can take EITHER Mental Math or Speed Math, but not both.
- Each school can have a MAXIMUM of 3 participants (unlimited number of sponsors may participate)
- Trophies or medals or plaques will be given to places 1-10 for students and 1-10 for sponsors.

Chalk Talk: (T, A, M) Speeches will be given by the students on the specified topic

- Speeches will be limited to 7 minutes in length.
- Each school can have only one presenter for each level Theta, Alpha, Mu.
- Students may have no materials other than one 3 x 5 index card.
- Students will turn in a 3 x 5 card listing outside references used in their talk.
- See judging form page 16, in this packet.
- 10 people from each division will advance to the final round.
- **Mu Topic – Math and Profitability (Entertainment and Gambling)**
- **Alpha Topic – Math and the Desert (Such as Climate effects, water sources)**
- **Theta Topic – Math and Desserts (Hotel industry and baking)**
- Trophies or medals or plaques will be given to the top 10 in each division.
- Preliminaries will be done online. Finalists will be announced PRIOR to the Convention. See page 16 for submitting online instructions
- Top 10 students will present at the Convention, writing on 3’ x 5’ dry erase boards
-



Poster

- Schools will create a poster at the Convention on a theme announced during the opening ceremony.
- Only the poster board supplied by the Convention may be used.
- All other materials are the responsibility of each school.
- Each school may submit only one poster.
- Markers, colored pencils, paint, etc., can be used. NO GLITTER!
- Nothing can be attached to the poster board with glue, tape or any other adhesive.
- Posters will be judged on content, relevance to theme, artistic quality and overall appearance.
- See judging sheet, on Page 17 in this packet.
- Trophies or medals or plaques will be given to the top 10 schools.

Sweepstakes Scoring

Sweepstakes: Trophies or medals or plaques will be given to the top 10 schools.

The overall Sweepstakes award is calculated from the scores of all tests and competitions. The Sweepstakes score is calculated as follows: First a t-score is calculated for each individual competition score. A t-score is calculated using the formula $t = 10z + 50$. In this formula, z is the standard score (z-score) and represents the number of standard deviations above or below the mean a particular score is located. The z-score is equal to $(x - \mu) / \sigma$, where x is the actual team score, μ is the mean score, and σ is the standard deviation of all the team scores. For each test, the t-scores have a mean of 50. After each t-score is calculated, it is multiplied by a weighing factor so that each competition has a value relative to its importance.

Competition	Num	% Ea	Tot. %
Division (Indiv, Bowl, Ciph) *Top 4 in M,A,T	3	15	45
Topic Tests: Top student from ea. sch. on ea. test	30	1.2	36
Interschool	1	3.5	3.5
Hustle	1	4.5	4.5
Relay	1	4.5	4.5
Poster	1	2	2
Chalk Talk: Top student in each division	3	1.5	4.5
Total Weighing Points			100%

So that sponsors and students can get a better feeling for the relative importance of each competition, the table above gives the **approximate** percentage for each competition.

* The top 4 students per school per division will be the participants in the division bowl round. The top 4 students per division of each school will be determined by the sum of their individual test scores & their ciphering score.

*The Blue-Ribbon Awards (3 trophies or medals or plaques) will be determined by a school's total sweepstake points divided by the number of participants from that school (minimum of 8). This will give smaller schools a chance to win a trophy (if they do not win a sweepstakes trophy).

Topic Tests

Each student must register for one topic test for each round. Please indicate the number of students taking each test when you register online. Students may take any topic test in their division, a higher division or any that are designated as open.

<u>Round One</u>	<u>Round Two</u>	<u>Round Three</u>
Theta Conics & Analytic Geometry	Theta Applications	Theta Area and Volume
Theta Equations and Inequalities	Theta Circles and Polygons	Theta Logs and Exponents
Theta Triangles	Theta Combinatorics and Probability	Theta Sequences and Series
Alpha Analytic Geometry	Alpha Applications	Alpha Complex Numbers
Alpha Equations and Inequalities	Alpha Trigonometry	Alpha Matrices and Vectors
Alpha Math in Physics	Alpha Combinatorics and Probability	Alpha Sequences and Series
Mu BC Calculus	Mu Applications	Mu Area and Volume
Mu Limits and Derivatives	Mu Integration	Mu Comprehensive
Mu Math in Physics	Mu Combinatorics and Probability	Mu Sequences and Series
Open History of Math	Open Number Theory	Open Discrete Math

Descriptions of Topic Tests

Calculator use – NO calculators allowed on any test or bowl.

Theta Level Tests – Tests are written at the Alg II level and may contain concepts from Alg II and/or Geo

Triangles-any topic using triangles (including special right triangles)

Circles-any topic using circles (including some conics)

Area & Volume-any Geometry topic that involves area and volume

Equations & Inequalities -elementary equations and inequalities

Theta Applications -applications of Algebra 2 and Geometry concepts

Conics & Analytic Geometry -any problem using all conic formulas and basic analytic geometry

Logs & Exponents -elementary logarithms and exponents

Combinatorics & Probability-problems using probability, permutations, and combinations

Sequences and Series-problems involving any type of series, including applications

Alpha Level Tests – Tests are written at the Pre-Calculus level.

Trigonometry-any topic involving the use of trigonometry

Alpha Applications-applications of pre-calculus concepts, may include trigonometry

Analytic Geometry- basic analytic geometry, conics, alternative coordinate systems

Sequences and Series- problems involving any type of series, including applications

Complex Numbers -any topic involving complex numbers

Matrices and Vectors- problems involving matrix operations and vector properties and operations

Equations & Inequalities -elementary equations and inequalities

Combinatorics & Probability-problems using probability, permutations, and combinations

Math in Physics – These problems will be based on material from AP Physics 1 and 2

Mu Level Tests – Tests are written at the Calculus level.

Limits & Derivatives—any problem relating to limits and derivatives of functions of one variable or graphs

Mu Applications—Applications of Calculus, including optimization and related rates

Areas & Volumes—ALL methods of finding or approximating areas under curves or between curves including polar and ALL methods of finding volumes of solids of rotations as well as volumes of irregular shapes using cross sections

Sequences & Series—all sequences and series topics, including calculus-based series such as Taylor series

Integration—any problem relating to integrals of one variable

BC Calculus—any topic that is on the AP Calculus BC syllabus from the AP office

Combinatorics & Probability—advanced problems using probability, permutations, and combinations. Some questions will require Calculus knowledge.

Comprehensive—these problems will cover higher level math with NO Calculus.

Math in Physics—These problems will be based on material from the AP Physics 1, 2, and C courses.

Open Level Tests

History of Math—the topic is open...there is no specific era or topic

Number Theory—advanced number theory, factors, primes, modulo, bases, etc.

Discrete Math—covers math topics related to discrete-valued variables.

Gemini Tests

Gemini tests will be given during the school bowl round to students who are NOT on the school teams. These will be available to Theta, Alpha, and Mu divisions. Students will work on this test in two-person teams from the same school. Singletons may join with another school to make a 2-person team. The tests are to have the same format and content as the topic tests. This does **NOT** count towards sweepstakes. 10 Medals or Trophies, ONE per school will be awarded. NOT Part of Sweepstakes.

Team Relay

Each school may have ONE Relay team—which will be comprised of 3 team members (one each from Theta, Alpha, and Mu). There will be a practice round followed by 9 rounds. Students will begin seated as Theta, Alpha, Mu. After each set of 3 questions, the students will move back one seat. Each student will have their own question to work on, but each team will have a single answer sheet on which to write **answers only**. This answer sheet can be passed behind them or in front of them during the round, but they cannot talk to each other. If the student wants the answer sheet passed back up to him/her, the student can snap their fingers or tap the person in front of him/her on the back. Each question will be 6 minutes in length. Answer sheets can be submitted at the end of 2, 4, or 6 minutes but can only be submitted once. Each correct answer will be worth 2 points. Bonus points will be awarded if all 3 answers are correct—12 points at the end of minute 2, 8 points at the end of minute 4, 4 points at the end of minute 6. Awards will be given to the top 10 teams. Individual awards will be given to each of the 3 members of the team.

Hustle

Each school may have ONE Hustle team---which will be comprised of 6 people from your school as follows:

1. The actual team will consist of 4 students, with no more than 2 students from the same division,
2. Each school must have a sponsor and an additional sponsor or student that will score for another school. If you do not have a sponsor and an additional person, you may come in and see if there are extra people so you MIGHT be able to compete.

There will be 5 rounds of 5 minutes each. The team is presented with 125 questions, color-coded by 5 math categories: Geometry, Algebra 2, Pre-Calc, Calc and Statistics. There will be 25 of each color/category, and 25 total submissions will be graded in each round. Before the end of each round a 1-minute warning will be given. Teams should have compiled answers for the judges to grade and will submit a paper with the question which includes the answer in the answer blank. Correct responses for Round 1 will receive 6 pts, 5 pts for Round 2, 4 pts for Round 3, 3 pts for Round 4 and 2 pts for round 5. Awards will be given to the top 10 teams. Individual awards will be given to each of the 4 student members of the team.

Award & Scholarship Forms Are Online at www.mualphatheta.org

Awards available are:

*Rubin Chapter Award, *Kalin Award and *Governor's Leadership and Service Award for outstanding students, and the *Andree Math Education Award, all due March 1

*Mu Alpha Theta Scholarships, due March 1

*Regional Sponsor of the Year Award due March 15,

*Sister Scholastica Most Committed Sponsor Award due May 15,

*Huneke Distinguished Sponsor Award due June 15,



Postmark Deadline: May 1, 2024 Regular
(Early Bird postmarked April 24, 2024 or before)

Payment must accompany the registration form.

Please print information clearly.

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School Name _____ Chapter ID _____

School Address _____

Contact person _____ Summer Email _____

City _____ State _____ Zip code _____

Phone _____

Important updates and information will be emailed after school is out.

All students must be registered Full or Associate members of Mu Alpha Theta.

The registration fee, \$600, is to be paid (postmarked) in full on or before May 1, 2024.
Early Bird Registration is due POSTMARKED April 24th, 2024

Number of students registering: # _____ x \$ 600 = _____

Number of sponsors registering # _____ x \$ 600 = _____ TOTAL _____

EARLY BIRD NO CHANGES, POSTMARK must be April 24, 2024 or earlier
For Students:
Full payment being sent early, postmark April 24 # _____ x \$575 = _____
Sponsors/Chaperones:
Full payment being sent early, postmark April 24 # _____ x \$575 = _____

Total paid _____

Make check payable to:
Mu Alpha Theta Educational Foundation
Please note: **2024 Las Vegas Convention**

Mail to:
Mu Alpha Theta Convention
c/o University of Oklahoma
3200 Marshall Ave, Suite 150
Norman, OK
73019

NOTE: If the National Office is paying for a member of your group, please add a note specifying the names below.

Send this form with payment Postmarked:
April 24, 2024 Early Bird \$575 each or May 1, 2024 Regular \$600 each.

Participant's printed name _____ School _____

Student Participation Policies

Please read the following and indicate your acceptance by your signature(s) where applicable.

NOTE: NO STUDENT WILL BE GRANTED ACCEPTANCE TO THE NATIONAL CONVENTION WITHOUT THIS FORM ON FILE.

Rules of Conduct

- Participant agrees to conduct himself/herself in a manner appropriate for a member of an honor society.
- Participant agrees to join all scheduled activities, to keep his/her sponsor informed of whereabouts before leaving the group/housing during unscheduled times, and when permission is given to leave the group, to travel in groups of three or more.
- Participant agrees not to visit the rooms of the opposite sex. No visits are allowed after curfew.
- Participant agrees not to bring with him/her or to acquire during the trip, drugs of any kind including alcohol or smoking materials.
- Participant agrees to permit the sponsor to keep any prescription medicines during the trip.
- In matters of dress and deportment, participant agrees to follow the suggestions of the Convention host, Governing Council, and school sponsor.
- Participant agrees to adhere to curfew as determined by the Convention host and to permit occasional room and baggage checks during the trip.
- Participants agrees that failure to follow any of these rules may result in confinement to housing assignment and/or in the return home of the participant (on the first available flight) at participant's own expense, or, if a minor, at the expense of the parent or legal guardian of participant, and without benefit of any refund.

Participant's signature

Date

Parent/Guardian's signature

Date

Sponsor's signature

Date

Release and Indemnity Agreement

The undersigned participant, and his/her parents or legal guardians of the participant who is a minor, in consideration of being permitted to attend the Mu Alpha Theta National Convention, and for other good and valuable consideration do hereby release, waive and discharge Mu Alpha Theta, its Governing Council and Convention committee from all manner of action, causes of action, suits, damages, judgments, or claims for personal injury or death or loss of personal property, and any loss, damage, expense or cost including any lodging, meals, ground or air travel which may be incurred by either the undersigned participant or the undersigned parents or legal guardians of such participant, arising out of any participation in the national convention.

The undersigned participant and his/her parents or legal guardians agree to indemnify Mu Alpha Theta, its Governing Council and convention committee for any financial liability or damages incurred which were caused in whole or in part, by the negligence or intentional act of the participant while attending the National Convention.

Participant signature and date

parent/legal guardian signature and date

**Mail to: National Office, Mu Alpha Theta Convention
c/o University of Oklahoma 3200 Marshall Ave, Suite 150 Norman, OK 73019
Postmarked by May 1 (attach with 13a or b and 15 front & back and Medical card f&b)**

NOTE: NO STUDENT WILL BE GRANTED ACCEPTANCE TO THE NATIONAL CONVENTION WITHOUT THIS SIGNED FORM ON FILE.

STUDENT Medical Release Form

School _____

(This form MUST be notarized)

I, _____, as legal guardian of _____
or I, _____, authorize representatives from the school, officers of Mu Alpha Theta
Student over 18
and members of the Convention staff, to initiate such first aid and other medical treatment (including hospitalization) as deemed necessary to protect the health and safety of participant while in attendance at and traveling to/from the Convention. I understand that such treatment may include obtaining the services of health care providers. I acknowledge financial responsibility for such care not covered by the following medical insurance:

Company _____ Policy # _____

Subscriber: _____ Legal Guardian's Signature _____

Emergency Contact 1: _____ Phone Number: (_____) _____ Relationship _____

Emergency Contact 2: _____ Phone Number: (_____) _____ Relationship _____

STATE OF _____ COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____, by

(name of person acknowledging).

Printed Name of Notary

(NOTARY SEAL)

Signature of Notary Public

Personally Known _____ OR Produced Identification _____

Type of Identification Produced _____

Include a copy of both sides of your insurance card(s).

ALL PRESCRIPTION MEDICATIONS (with the exception of items such as inhalers) must be left in the possession of the sponsor or an adult. Please indicate the name of the prescription medication and the dosage. Also include other medical conditions, including allergies, the convention staff and sponsors should be aware of:

Video/Photo/Media Release Form

Mu Alpha Theta may be videotaping/photographing students during the convention as well as writing articles about the Convention that may appear online at the Mu Alpha Theta website. I agree to allow my child or myself, _____, to be part of the videotaping, photography, and/or media. I further release Mu Alpha Theta for any liability from this endeavor.

Parent or Legal Guardian's Signature

Date

**Mail to: National Office, Mu Alpha Theta Convention
c/o University of Oklahoma 3200 Marshall Ave, Suite 150 Norman, OK 73019
Postmarked by May 1 (attach with 12 and 15 front & back and Medical card f&b)**

NOTE: NO STUDENT WILL BE GRANTED ACCEPTANCE TO THE NATIONAL CONVENTION WITHOUT THIS SIGNED FORM ON FILE.

**STUDENT Medical Release Form (No health insurance) School _____
(This form MUST be notarized)**

I, _____, as legal guardian of _____
or I, _____, authorize representatives from the school, officers of Mu Alpha Theta
Student over 18

and members of the Convention staff, to initiate such first aid and other medical treatment (including hospitalization) as deemed necessary to protect the health and safety of participant while in attendance at and traveling to/from the Convention. I understand that such treatment may include obtaining the services of health care providers.

I (we) acknowledge financial responsibility. At this time, we currently do not have medical insurance.

Legal Guardian's Signature _____

Emergency Contact 1: _____ Phone Number: (_____) _____ Relationship _____

Emergency Contact 2: _____ Phone Number: (_____) _____ Relationship _____

STATE OF _____ COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____, by

_____(name of person acknowledging).

Printed Name of Notary

(NOTARY SEAL)

Signature of Notary Public

Personally Known _____ OR Produced Identification _____

Type of Identification Produced _____

ALL PRESCRIPTION MEDICATIONS (with the exception of items such as inhalers) must be left in the possession of the sponsor or an adult. Please indicate the name of the prescription medication and the dosage. Also include other medical conditions, including allergies, the convention staff and sponsors should be aware of:

Video/Photo/Media Release Form

Mu Alpha Theta may be videotaping/photographing students during the convention as well as writing articles about the Convention that may appear online at the Mu Alpha Theta website. I agree to allow my child or myself, _____, to be part of the videotaping, photography, and/or media. I further release Mu Alpha Theta for any liability from this endeavor.

Parent or Legal Guardian's Signature

Date

**Mail to: National Office, Mu Alpha Theta Convention
c/o University of Oklahoma 3200 Marshall Ave, Suite 150 Norman, OK 73019
Postmarked by May 1 (attach with 12 and 15 front & back and Medical card f&b)**

NOTE: NO **SPONSOR or CHAPERONE** WILL BE GRANTED ACCEPTANCE TO THE NATIONAL CONVENTION WITHOUT THIS SIGNED FORM ON FILE.

Medical Release Form FOR SPONSORS or CHAPERONES
(this MUST be notarized)

I, _____, as sponsor or guest of _____
School Name

authorize representatives from the school, officers of Mu Alpha Theta and members of the convention staff, to initiate such first aid and other medical treatment (including hospitalization) as deemed necessary to protect the health and safety of participant while in attendance at and traveling to/from the Convention. I understand that such treatment may include obtaining the services of health care providers. I acknowledge financial responsibility for such care not covered by the following medical insurance:

Company _____ Policy # _____

Subscriber: _____ Sponsor or Guest Signature _____

Emergency Contact 1: _____ Phone Number: (_____) _____ Relationship _____

Emergency Contact 2: _____ Phone Number: (_____) _____ Relationship _____

STATE OF _____ COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____, by

(name of person acknowledging).

Printed Name of Notary

(NOTARY SEAL)

Signature of Notary Public

Personally Known _____ OR Produced Identification _____

Type of Identification Produced _____

Include a copy of both sides of your insurance card.

Also list other medical conditions, including allergies, that the Convention staff should be aware of:

Video/Photo/Media Release Form

Mu Alpha Theta may be videotaping/photographing sponsors or guests during the convention as well as writing articles about the Convention that may appear online at the Mu Alpha Theta website. I agree to allow myself, _____, to be part of the videotaping, photography, and/or media.

I further release Mu Alpha Theta from any liability from this endeavor.

Sponsor or Guest Signature

Date

Mail to: National Office, Mu Alpha Theta Convention
c/o University of Oklahoma 3200 Marshall Ave, Suite 150 Norman, OK 73019
Postmarked by May 1 (attach with 15 front & back and Medical card f&b)

NOTE: NO **SPONSOR or CHAPERONE** WILL BE GRANTED ACCEPTANCE TO THE NATIONAL CONVENTION WITHOUT THIS SIGNED FORM ON FILE.

No Medical Insurance Form FOR SPONSORS or CHAPERONES
(this MUST be notarized)

I, _____, as sponsor or guest of _____
School Name

authorize representatives from the school, officers of Mu Alpha Theta and members of the convention staff, to initiate such first aid and other medical treatment (including hospitalization) as deemed necessary to protect the health and safety of participant while in attendance at and traveling to/from the Convention. I understand that such treatment may include obtaining the services of health care providers. I acknowledge all financial responsibility.

Emergency Contact 1: _____ Phone Number: (_____) _____ Relationship _____

Emergency Contact 2: _____ Phone Number: (_____) _____ Relationship _____

STATE OF _____ COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____, by _____ (name of person acknowledging).

Printed Name of Notary

Signature of Notary Public

(NOTARY SEAL)

Personally Known _____ OR Produced Identification _____
Type of Identification Produced _____

Also list other medical conditions, including allergies, that the Convention staff should be aware of:

Video/Photo/Media Release Form

Mu Alpha Theta may be videotaping/photographing sponsors or guests during the convention as well as writing articles about the Convention that may appear online at the Mu Alpha Theta website. I agree to allow myself, _____, to be part of the videotaping, photography, and/or media. I further release Mu Alpha Theta from any liability from this endeavor.

Sponsor or Guest Signature Date

Mail to: National Office, Mu Alpha Theta Convention
c/o University of Oklahoma 3200 Marshall Ave, Suite 150 Norman, OK 73019
Postmarked by May 1 (attach with 15 front & back and Medical card f&b)

Print front and back and sign.

Mu Alpha Theta National Mathematics Honor Society strives to integrate community, inclusivity, communication, and teaching & learning across all its work. MA Θ is advancing the understanding and enjoyment of mathematics and strives to facilitate and support environments that foster this goal. As an honor society, MA Θ is committed to providing an inclusive climate that encourages the open expression and exchange of ideas, that is free from all forms of discrimination, harassment, and retaliation, and that is welcoming and comfortable to all members and to those who participate in its activities. In pursuit of that commitment, MA Θ is dedicated to the practice of equal opportunity, respect, treatment, participation, and outcomes for all regardless of gender, gender identity or expression, sexual orientation, race, color, national or ethnic origin, religion or religious belief, age, marital status, disabilities, veteran status, political affiliation or belief, field of expertise in all interactions and activities. This philosophy applies to all MA Θ activities including conventions, publications, programs, and governing structures and bodies.

MA Θ expects the standards set in this Code, as articulated below, to be upheld by its members; leaders; staff; awardees; and participants in meetings, conventions, events, or social media exchanges regardless of the capacity in which they are performing (be it as an individual, organizer, delegate, speaker, sponsor, exhibitor, or in any other capacity). The professional behavior and communications of MA Θ members, sponsors, and staff must reflect an environment that is safe, respectful, and supportive of others.

The code applies to the behavior of members of MA Θ and individuals who interact with MA Θ in their professional lives. These expectations apply to the teaching, research, service and other duties carried out by MA Θ members in their workplace and their behavior in the mathematical community. Violations of any part of this Code can be reported to the MA Θ Governing Board and may result in consequences described herein.

We expect that the MA Θ staff, MA Θ sponsors, MA Θ members, and affiliated parties (non-members attending or supporting MA Θ events) will:

- promote the enjoyment, study, application, teaching and understanding of mathematics;
- act with integrity, and strive to be objective, unbiased, and truthful in all aspects of our work;
- act to support MA Θ 's commitment to promoting diversity, equity and inclusion;
- never intentionally discriminate against another person on the basis of gender, gender identity or expression, sexual orientation, race, color, national or ethnic origin, religion or religious belief, age, marital status, disabilities, veteran status, or field of expertise
- avoid biased, demeaning, intimidating, coercive, or harassing/hostile conduct or commentary, whether seriously or in jest (e.g., based on power differential, gender [sex, identity, expression], sexual orientation, race, ethnicity or national origin, religion, marital status, veteran status, age, body size or other physical appearance, disability, or other identities);
- never bully, abuse, victimize, or engage in harassment of any kind, including sexual harassment, whether via spoken or written words, emails, offensive images or graffiti, social media posts, or any other means;
- avoid injuring others, their property, reputation, or employment by false or malicious action;
- be respectful of the privacy of others and the protection of their personal information and data;
- accept and offer honest criticism of technical work, acknowledge and correct errors, and credit properly the contributions of others;
- do not claim authorship of something that is not yours and do not claim sole authorship of something created with another person or in a group setting;
- demonstrate that differing perspectives are valued by critiquing only ideas (not people);
- answer questions about conduct concerns in a forthright and complete manner;
- assist colleagues and co-workers in their professional development and support them in following this code of conduct;
- avoid real or perceived conflicts of interest whenever possible, and disclose them to affected parties when they do exist.

Violations of this MAΘ Code of Conduct by any member, sponsor, or affiliated parties may result in:

- Written reprimand from the MAΘ Governing Board
- Removal from the MAΘ event or convention
- Banning of individual or group from future MAΘ conventions

These consequences would be regardless of status, role, or title.

I understand and agree to abide by all Mu Alpha Theta Code of Conduct expectations at all times that I am attending a Mu Alpha Theta event or representing Mu Alpha Theta. I understand that this Code of Conduct applies to me, and the consequences will also apply to me.

Print participant's Name

School

Participant's Signature

Date

NOTE: NO STUDENT, SPONSOR, OR CHAPERONE WILL BE GRANTED ACCEPTANCE TO THE NATIONAL CONVENTION WITHOUT THIS FORM ON FILE.

Print this page, Front and back, sign and send with other forms

Mail to: MAO National Office, Mu Alpha Theta Convention

c/o University of Oklahoma 3200 Marshall Ave, Suite 150 Norman, OK 73019

Postmarked by May 1.

Chalk Talk Rules/Guidelines and Judging Sheet

Topics for each division are:

Mu Topic – Math and Profitability	(Entertainment and Gambling)
Alpha Topic – Math and the Desert	(Such as Climate effects, water sources)
Theta Topic – Math and Desserts	(Hotel industry and baking)

Note to students and judges: A talk fitting broader topic (for example, Hotel industry) is sufficient, it does not have to fit the narrower topic (for example, dessert).

Chalk Talk Online Round 1 Directions

1. The talk is to be uploaded to YouTube as an UNLISTED video so that anyone with the link can view the video without issues. The upload is a 7-minute CONSECUTIVE VIDEO WITH NO EDITS. The students can do multiple practice runs with their talk prior to the FINAL uploaded talk to be graded. **The upload is the final version.** It is completely up to the student how they present their work (document camera, use a whiteboard/chalkboard, etc.). The student needs to be comfortable with the format they choose. They must, however, use a writing tool in the video to present their talk.
2. The video links for all of the school’s competitors must be emailed to Kim Woolfenden woolfmath@aol.com and Rob Snow robsnow23@yahoo.com by **8pm Eastern Std Time on June 8**. Only one student per division per school. Max. of 3 TOTAL **For schools who have 2 or all 3 divisions, please send all of the links in one email to both addresses.**
3. The preliminary videos will be judged the week of June 10-16, 2024. Finalists’ names will be emailed to all sponsors on Monday June 17. The finalists will do their talk live in Las Vegas with 3 judges for a total of 150 points. Chalk Talk finalists will be sequestered until their talk is complete.
4. If anyone has any questions about the Chalk Talk process, please email Rob Snow at robsnow23@yahoo.com.

Chalk Talk presentations will be judged on the following scale shown below

Two judges will be assigned each ONLINE presentation in the preliminary round, for a total of 100 points.

CONTENT

Knowledge of subject	1	2	3	4	5
Accuracy of math used	1	2	3	4	5
Appropriateness of math used	1	2	3	4	5
Originality	1	2	3	4	5
Relevance of facts to topic	1	2	3	4	5

PRESENTATION

Clear articulation	1	2	3	4	5
Addressed to audience	1	2	3	4	5
Use of white board or flip chart	1	2	3	4	5
Wow Factor!!	1	2	3	4	5
Use of time	1	2	3	4	5

Judges comments:

Total: _____

Poster Competition Information

- Chapters attending the annual Convention may create a poster on the theme announced at the Convention.
- All students may work as a team during this event.
- Only one poster is permitted per school.
- The poster board will be supplied by the Convention host.
- Materials used for the poster are to be supplied by each school. Nothing can be attached to the poster by using tape, glue, etc. Suggested materials are colored pencils, crayons, markers, pencil, etc.
- No glitter of any kind is to be used, including glitter pens/paints.
- Names of schools are to be written on the back, not the front, with the school ID number.
- Poster will be judged on layout, neatness, content, relation to the theme, artistic quality, and overall effect.
- A panel of judges will consist of seven sponsors/chaperones. The decision of the judges is final.
- Trophies or medals or plaques will be awarded to the top 10 places.
- Chapters submitting posters for judging shall, at the same time, waive their rights to the Mu Alpha Theta National Office for use of images of their poster in publicizing Mu Alpha Theta in print or electronic forms. The National Office reserves the right to retain any of the posters submitted for up to one month following the annual meeting for making such images. All posters retained will be returned to their sponsoring chapter within one month following the close of the Convention.

Poster Competition Judging Sheet

School Name _____ School ID # _____ Judge's # _____

Note to judges: Please write in point values for all subcategories on the left. Total these and write subtotals for each category on the right.

I. Content (24 points, maximum) _____ **Total points**

_____ A. Originality (8 points)

_____ B. Theme Related (8 points)

_____ C. Math Related (8 points)

II. Artistic Quality (24 points, maximum) _____ **Total points**

_____ A. Lettering/Artwork (8 points)

_____ B. Color Coordination/Design (8 points)

_____ D. Style/Layout (8 points)

III. Overall Effect (20 points, maximum) _____ **Total points**

_____ A. Attractiveness/Neatness (10 points)

_____ B. Eye Catching Design (5 points)

_____ C. WOW Factor (5 points)

Deductions: Use of unauthorized materials or attachments -10 points

School name, logo, initials or any other identifying elements on front -10 points

_____ **Total Points**
(68 maximum)

Comments on back:

TRANSFER OF SPONSORSHIP FORM

This form must be mailed with registration paperwork postmarked by May 1, 2024.

Home School Information

Name of student _____

Name of school _____

Name of principal _____ Phone (_____) _____

Sponsor's name _____

Receiving Sponsor Information

Sponsor's name _____ Chapter ID # _____

Name of school _____

MAΘ's policy states that every student that competes or attends a MAΘ-sanctioned event must have a school sponsor that is either a teacher or administrator at that school with them at that event. The home school named above is transferring sponsorship responsibilities for the Mu Alpha Theta national convention to the receiving sponsor identified above. This allows the stated home school's students to participate at the national convention. The receiving sponsor assumes the responsibility of acting as sponsor for the home school student(s) for the entire convention. This is not a transfer of liability.

Home school principal signature

Home school MAΘ sponsor signature

Receiving school principal signature

Receiving school MAΘ sponsor signature

List of adults affiliated with the school that will be attending the 2024 National Convention:

IMPORTANT, **NEW**.... This will make our life easier and you will have all information in 1 place!

Go to:

<https://docs.google.com/spreadsheets/d/1y3sllijTib2u3xy8nMpIgnlgd7wfNpkroVDNfQQhrEw/edit?usp=sharing>

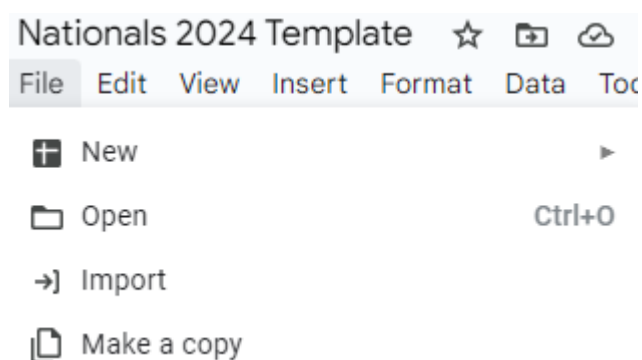
Make a copy (instructions at the bottom of this page if needed), name the file your SCHOOL NAME.

Use the form to assist with registration.

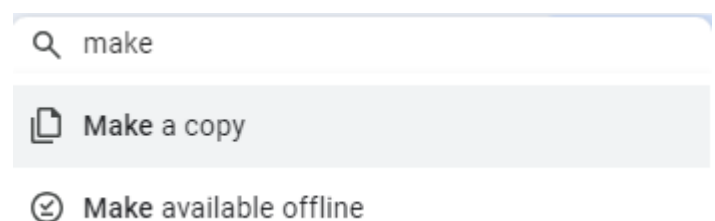
Once you are registered, share your spreadsheet with MAO President, Convention Host and Convention Scorer Rob (robsnow23@yahoo.com), Kim (woolfmath@aol.com), and Ziwei (ziweilu@gmail.com).

To make a copy of the google sheet:

With an expanded top bar menu, go to Files -> Make a copy:



With a collapsed menu, type "make" in the search bar:



These sources provide a brief overview of what's generally asked about on a History of Mathematics test. However, detailed examination of the sources along with further research is required for better results.

<https://mathshistory.st-andrews.ac.uk/Honours/>

<https://mathshistory.st-andrews.ac.uk/Biographies/category-women/>

<https://mathshistory.st-andrews.ac.uk/Biographies/category-arabs/>

<https://mathshistory.st-andrews.ac.uk/Biographies/category-greeks/>

<https://mathshistory.st-andrews.ac.uk/Biographies/category-indians/>

<https://mathshistory.st-andrews.ac.uk/HistTopics/category-chinese/>

<https://mathshistory.st-andrews.ac.uk/HistTopics/category-babylonians/>

<https://mathshistory.st-andrews.ac.uk/HistTopics/category-egyptians/>

<https://mathshistory.st-andrews.ac.uk/HistTopics/category-math-physics/>

<https://mathshistory.st-andrews.ac.uk/OtherIndexes/quotations/>

https://en.wikipedia.org/wiki/List_of_conjectures

https://en.wikipedia.org/wiki/Fields_Medal

https://en.wikipedia.org/wiki/Mathematical_puzzle

<https://mathigon.org/timeline>

https://en.wikipedia.org/wiki/Timeline_of_mathematics

https://www.yardbarker.com/entertainment/articles/20_films_about_math_mathematicians_and_math_geniuses/s1_28630979

FOR ANY QUESTIONS PLEASE
CONTACT

Kim Woolfenden
Woolfmth@aol.com

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Tentative schedule is out

