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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QUESTIONS?????? Please contact Kim Woolfenden WOOLFMATH@aol.com
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: MATH111.**

*Online at [Mu Alpha Theta Room Block](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. This choice will be made May 5th-10th, 2024.
**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](http://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](mailto: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.

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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](mailto:woolfmath@aol.com) and [info@mualphatheta.org](mailto: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**
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 ____ TBP _____.

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**Mu Alpha Theta National Convention 2024**

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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, $\mu$ is the mean score, and $\sigma$ 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.

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

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.

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

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.

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.
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 ____________________________

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

Printed Name of Notary ____________________________

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 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

____________________________ (NOTARY SEAL)

Signature of Notary Public

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
e/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)
Mu Alpha Theta National Mathematics Honor Society strives to integrate community, inclusivity, communication, and teaching & learning across all its work. MAΘ is advancing the understanding and enjoyment of mathematics and strives to facilitate and support environments that foster this goal. As an honor society, MAΘ 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, MAΘ 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 MAΘ activities including conventions, publications, programs, and governing structures and bodies.

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

We expect that the MAΘ staff, MAΘ sponsors, MAΘ members, and affiliated parties (non-members attending or supporting MAΘ 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 MAΘ'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.
Mu Alpha Theta National Convention 2024  

**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 woolmath@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.

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of subject</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Accuracy of math used</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Appropriateness of math used</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Originality</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Relevance of facts to topic</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRESENTATION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear articulation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Addressed to audience</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Use of white board or flip chart</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Wow Factor!!</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Use of time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>School Name __________________________</th>
<th>School ID # __________</th>
<th>Judge's # __________</th>
</tr>
</thead>
</table>

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/Fields_Medal
https://en.wikipedia.org/wiki/Mathematical_puzzle
https://mathigon.org/timeline
https://www.yardbarker.com/entertainment/articles/20_films_about_math_mathematicians_and_math_geniuses/s1__28630979
FOR ANY QUESTIONS PLEASE CONTACT
Kim Woolfenden
Woolfmath@aol.com

© Tentative schedule will be out later 😊
Registration for Chapter Delegate for the Mu Alpha Theta Student Assembly
____________________________________ is the official delegate for the_______________________________________ chapter of Mu Alpha Theta in _____________________________________ City State

Permission to run for *Regional Representative:

This student has my permission to run for the office of Regional Representative which, if elected, would become one of the National Student Officers. This student will then be required to attend the National Convention the following summer and will have their registration fees paid by the National Office of Mu Alpha Theta. In agreeing to have your student run as a Regional Representative, you are also agreeing that your school will bring or make arrangements for this student to attend the convention next summer.

Yes or No (circle one)

____________________________________ Sponsor

____________________________________ Date

*For the duties of a Student Delegate, Regional Representative and National Student Officer, read the Student Delegate By-Laws online at mualphatheta.org.