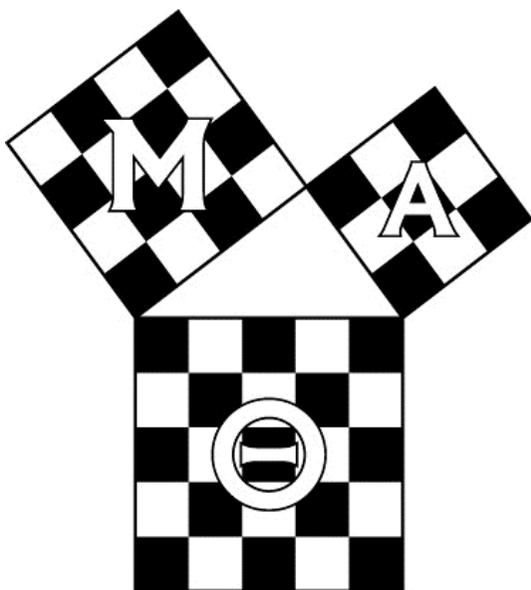


HANDBOOK FOR SPONSORS



MU ALPHA THETA

**NATIONAL HIGH SCHOOL and TWO-YEAR COLLEGE
MATHEMATICS HONOR SOCIETY**

c/o University of Oklahoma

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MU ALPHA THETA

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This book is dedicated to Josephine Andree, wife of the founder of Mu Alpha Theta Richard Andree and the first secretary-treasurer and Math Log editor. Without her dedication to this organization there would be no Mu Alpha Theta.

CONTENTS

| | |
|--|-----|
| FOREWORD | ii |
| THE GOVERNING COUNCIL | iii |
| I. HISTORY AND DEVELOPMENT OF MU ALPHA THETA | 1 |
| II. SPONSORING ORGANIZATIONS..... | 3 |
| III. CHARTERING A NEW CHAPTER | 6 |
| IV. LOCAL CHAPTER ORGANIZATION | 8 |
| V. SPONSOR RESPONSIBILITIES | 13 |
| VI. THE MU ALPHA THETA WEBSITE..... | 17 |
| VII. SAMPLE INITIATION CEREMONY..... | 20 |
| VIII. ACTIVITIES, CONTESTS, AND PROJECTS | 24 |
| IX. STATE MU ALPHA THETA ORGANIZATIONS..... | 27 |
| X. NATIONAL CONVENTIONS | 36 |
| XI. MU ALPHA THETA EDUCATIONAL FOUNDATION..... | 42 |
| XII. AWARDS, SCHOLARSHIPS, & GRANTS | 44 |
| XIII. NATIONAL CONSTITUTION | 50 |
| XIV. STUDENT DELEGATE ASSEMBLY BY-LAWS | 58 |
| APPENDIX A. Presidents..... | 62 |
| APPENDIX B. Award Winners | 63 |
| APPENDIX C. Merchandise | 69 |
| APPENDIX D. Regions..... | 70 |
| APPENDIX E. Forms | 71 |

FOREWORD

When Mu Alpha Theta was founded in 1957, the wish of Dr. Richard Andree was to create an organization that would recognize strong scholarship in mathematics and promote interest and enjoyment in the subject. Now, more than 55 years later, Mu Alpha Theta is known and recognized worldwide, with over 99,000 members in over 2,000 chapters.

As Mu Alpha Theta has grown over the years, so has the number of services it can provide to you and your students. I encourage you to use this handbook, along with our website, www.mualphatheta.org, to find information on scholarships, chapter and convention grants, sponsor and student awards, free contests, the annual national convention, and ideas for new member initiation and club activities. The website also allows you to find nearby chapters so you can collaborate with them on chapter activities or contests. To find nearby chapters, click on the “Find a Chapter” link at www.mualphatheta.org.

Mu Alpha Theta’s reputation for excellence is the result of decades of hard work and dedication by its sponsors, members, and officers. Thank you for being a Mu Alpha Theta sponsor and for being a part of the rich history of the organization.

A handwritten signature in black ink that reads "Todd Taylor". The signature is written in a cursive, flowing style.

Todd Taylor
Mu Alpha Theta President 2013-2015

THE GOVERNING COUNCIL

Policy decisions for Mu Alpha Theta are made by the Governing Council, consisting of twelve members: seven of whom are elected, four representatives who are appointed, and an executive director hired by the secretary-treasurer. The elected members are chosen by a vote of the individual chapters, each active chapter having one vote, and are as follows:

President:

The term as president is for two years, but is preceded by a year as president-elect and followed by a year as past president

Past President/President-Elect:

These alternate by years, so that in any given year one of these positions is filled.

Four Regional Governors:

A regional governor is elected from each of Mu Alpha Theta's four geographic regions, with votes for each regional governor cast only by those active chapters in the governor's region. The term of office is for four years.

Secretary-Treasurer:

The secretary-treasurer works out of the National Office and is elected for a term of four years. The secretary-treasurer, with the approval of the president, hires an executive director who is in charge of the details of the day-to-day management of the organization and serves as a non-voting, ex officio member of the Governing Council. There is no specific term of office for the executive director.

Four Representatives:

These are appointed by the governing bodies of Mu Alpha Theta's four sponsoring organizations: the Mathematical Association of America, the National Council of Teachers of Mathematics, the Society of Industrial and Applied Mathematics, and the American Mathematical Association of Two-Year Colleges.

Contact with the Governing Council can be made by writing, calling, or emailing the National Office:

MU ALPHA THETA
c/o University of Oklahoma
601 Elm AVE RM 1102
Norman, OK 73019
PH: 405-325-4489 FX: 405-325-7184
matheta@ou.edu

I. HISTORY AND DEVELOPMENT OF MU ALPHA THETA

Mu Alpha Theta, the National High School and Two-Year College Mathematics Honor Society, was conceived in 1954 by a committee of the National Council of Teachers of Mathematics under the chairmanship of Dr. Richard V. Andree of the University of Oklahoma. The committee recognized the need for a club to help high school and two-year college mathematics teachers promote interest in the understanding of mathematics.

Pi Mu Epsilon, the National Collegiate Honor Society in Mathematics, contributed funds for initial expenses. The University of Oklahoma provided space, clerical help, and technical assistance. The Mathematical Association of America and the National Council of Teachers of Mathematics cooperated by nominating the first officers and board of governors and continued to sponsor Mu Alpha Theta.

In October 1956, long before the first Russian Sputnik created a furor in mathematical and science education, a group of mathematicians under the leadership of Dr. and Mrs. Andree drew up a constitution for Mu Alpha Theta. The organization was fortunate to have as its first president, Henry Alder, a farsighted mathematician with faith in young people and a talent for arousing enthusiasm. The club began formally in the spring of 1957.

The following national officers served on the first council:

| | |
|------------------------|----------------------------------|
| President..... | Dr. Henry Alder, California |
| Vice-President..... | Mr. Edward Walters, Pennsylvania |
| Secretary-Treasurer... | Mrs. Josephine Andree, Oklahoma |
| Governors..... | Mr. George Hunt, Texas |
| | Miss Nellie Kitchens, Missouri |
| | Dr. John Mayor, Washington, DC |
| | Miss Virginia Pratt, Nebraska |

The Mathematical Association of America has formally sponsored Mu Alpha Theta since January 1958.

The official journal of Mu Alpha Theta, THE MATHEMATICAL LOG, was issued in mimeographed form in 1957-58 and began the printed form in September of 1958. It featured mathematical articles written especially for high school students, reports from clubs on interesting meeting topics, tantalizing problems, and news. Copies were sent free to the chapters four times a year until publication ceased in the spring of 2002.

Mrs. Josephine Andree served as the editor-in-chief of THE MATHEMATICAL LOG until September 1959, at which time Dr. Richard Andree accepted this responsibility. Assisting Mrs. Andree were V.E. Hoggatt, C.D. Olds, M.S. Klamkin, and Harry D. Ruderman. Later, Margaret Maxfield and Dr. Cletus Oakley assisted Dr. Andree. Betty Lichtenberg succeeded Dr. Andree and she was followed by Dr. H. Don Allen, Dr. Thomas Butts, and Patti Bowles-Johnson.

Noting that mathematics students within a chapter seemed to generate enthusiasm from working together, the Governing Council invited several chapters to a regional meeting. In March 1958, nearly 200 eager Mu Alpha Theta members assembled at the University of Oklahoma for reports by selected students, lectures by mathematics professors, and a tour of the computer laboratory. The meeting was so successful that soon other regional meetings were arranged in California, Missouri, Pennsylvania, Maryland, and Illinois, becoming a regular Mu Alpha Theta activity.

The success of an organization such as Mu Alpha Theta is the result of the enthusiasm and work of many people. Yet, there always seem to be a few individuals whose devotion allows the whole enterprise to flourish. For Mu Alpha Theta, these people were Mrs. Josephine Andree and Dr. Harold Huneke.

Mrs. Andree was the original secretary-treasurer and her devotion to and enthusiasm for Mu Alpha Theta are difficult to put into words. In the early days there were very few chapters of Mu Alpha Theta and each sponsor received regular handwritten letters from Mrs. Andree. Those of us who remember the early issues of the LOG can recall Mrs. Andree and her children going round and round the table gathering and stapling the mimeographed sheets.

In 1972, Harold V. Huneke succeeded Mrs. Andree as secretary-treasurer, and, in a large part because of his industriousness and dedication, the National Council of Teachers of Mathematics became a co-sponsor of Mu Alpha Theta, and Mu Alpha Theta itself grew to a total of more than 1000 chapters with more than 30,000 active members. By June 2013, the organization had grown to over 2000 chapters with over 99,000 active members. Of course Mu Alpha Theta measures its success not in number of members, but in terms of service rendered to members who find an active place in the modern world of mathematics. In 1984, Dr. Thomas J. Hill succeeded Harold Huneke and served as secretary-treasurer until his retirement in 1993. Dr. Stanley B. Eliason served until his retirement in 2001 and Dr. Paul R. Goodey is the current secretary-treasurer.

II. SPONSORING ORGANIZATIONS

**THE MATHEMATICAL ASSOCIATION OF AMERICA
THE NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS
THE SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICIANS
AMERICAN MATHEMATICAL ASSOCIATION OF TWO-YEAR COLLEGES**

The **Mathematical Association of America (MAA)** is the largest professional society that focuses on mathematics accessible at the undergraduate level. Organized in 1915, the MAA has members both in North America and around the world. The members include university, college, and high school teachers; graduate and undergraduate students; pure and applied mathematicians; computer scientists; statisticians; and many others in academia, government, business, and industry.

The mission of the MAA is to advance the mathematical sciences, especially at the collegiate level. This mission guides its core interests: education, research, professional development, public policy, and public appreciation. The MAA pursues these interests through extensive programs, meetings, and publications, well over one hundred national committees, and 29 regional sections.

The national headquarters of the MAA is located at 1529 18th Street, NW, Washington, DC 20036, USA. Their phone numbers are 800-741-9415 and 202-387-5200.

A particular publication of interest to Mu Alpha Theta members is *Math Horizons*, a magazine intended primarily for undergraduates interested in mathematics. The MAA also publishes several other journals and a range of books. Details are available through MAA online at www.maa.org.

Mu Alpha Theta members may be interested in the various MAA Committees associated with the MAA American Mathematics Competitions (AMC). These committees produce contest exams: the AMC 8, 10 and 12; the American Invitational Mathematics Examination; and the USA Mathematical Olympiad. Mu Alpha Theta is a sponsor of these competitions and has representatives on the various committees. Finally, the MAA organizes the Mathematical Olympiad Summer Program and sponsors the U.S. team to the International Mathematics Olympiad. Information on the MAA AMC is available through the MAA website listed above.

The **National Council of Teachers of Mathematics (NCTM)** was organized in 1920 and incorporated in 1928. Its purpose, as stated in its charter, is “to assist in promoting the interests of mathematics in America, and to vitalize and coordinate the work of local organizations of teachers of mathematics.”

The NCTM, the largest mathematics education organization in the world, has had a major influence on the teaching of mathematics. With the 2000 publication of *Principles and Standards for School Mathematics*, it has continued its mission to lead and coordinate major efforts to improve the teaching of mathematics.

The Mathematics Teacher, *Mathematics Teaching in the Middle School*, *Teaching Children Mathematics*, and *ON-Math* are official journals of the NCTM. All are good sources of topics for programs for mathematics clubs depending on the grade level of the clubs.

Other publications of NCTM are available by writing to NCTM, 1906 Association Drive, Reston, VA 20191 or by visiting the Council website at www.nctm.org.

Liaison is maintained through the NCTM member of the Governing Council of Mu Alpha Theta, who reports to the Board of Directors of NCTM. Mu Alpha Theta often maintains an exhibit booth at the NCTM annual meeting and has provided speakers for regional and national NCTM meetings in the past.

The **Society for Industrial and Applied Mathematics (SIAM)** is an international organization of researchers, practitioners, and teachers of applied mathematics and computational science. SIAM was founded in 1952 and has ties to the early days of computing. SIAM embraces the breadth of applied mathematics research and computational science and their application.

Applied mathematics, in partnership with computational sciences, is essential in solving many real-world problems, from modeling physical, chemical, and biomedical phenomena, to designing engineered parts, structures, and systems to optimize performance; to planning and managing financial and marketing strategies; to understanding and optimizing manufacturing processes, and many others. Applied mathematics is the study of those areas of mathematics relevant to such applications, including diverse areas such as differential equations and dynamical systems, numerical analysis, optimization, discrete mathematics, and control theory, to name only a few. Computational science includes a combination of applied mathematics and computing targeted at applications.

The goals of SIAM are to advance the application of mathematics and computational science to science, engineering and society, and to promote research in these fields. It achieves this through publications (13 research journals, and SIAM News), conferences, and other activities intended to promote communications among our members and with researchers and practitioners in related fields.

Persons interested in applied mathematics and/or computing are eligible for membership. Students may become members at discounted rates and receive SIAM News and SIAM Review. For further information see <http://www.siam.org> or call our Customer Service Manager at 1-800-447-7426.

The **American Mathematical Association of Two-Year Colleges (AMATYC)** was founded in 1974. It is the only organization exclusively devoted to providing a national forum for the improvement of mathematics instruction in the first two years of college. AMATYC has approximately 1800 individual members and more than 100 institutional members in the United States and Canada. Its membership includes educators in all fifty states and several Canadian provinces. Most are represented through AMATYC's 44 affiliate organizations. AMATYC is directed by a 13-member Executive Board. The AMATYC Office is located at Southwest Tennessee Community College in Memphis, Tennessee.

AMATYC provides professional development opportunities for educators interested in the first two years of collegiate mathematics instruction through an annual conference, webinars, summer institutes, traveling workshops, publications, and AMATYC Project ACCESS, a mentoring and professional development initiative for new two-year college faculty.

Through its second standards document, *Beyond Crossroads*, AMATYC presents a vision for quality mathematics instruction in the first two years of college, as well as strategies for implementation of messages in AMATYC's 1995 *Crossroads* document. *Beyond Crossroads* is available at www.BeyondCrossroads.AMATYC.org.<<http://www.BeyondCrossroads.AMATYC.org>>

AMATYC's Student Mathematics League (SML) is an annual mathematics competition that gives special recognition to two-year college mathematics students. The SML competition began in 1970 at Nassau Community College in New York and in 1981 AMATYC assumed sponsorship. More than 8000 community college mathematics students participate each year. The national student winner of the competition receives the Charles D. Miller Memorial Scholarship, and the national team winner receives the Glenn Smith Team Award.

III. CHARTERING A NEW CHAPTER

Mathematics clubs have existed for many years in high schools. Affiliation of such clubs with Mu Alpha Theta allows students to be recognized nationally for their talents in mathematics. Mu Alpha Theta provides insignia items such as pins, patches, t-shirts, tote bags, etc.; networking with other clubs; and an opportunity to join with other chapters at regional, state, and national meetings and competitions, at times uniting with them in worthwhile national projects.

Any high school or two-year college, with accreditation from a recognized accrediting agency and offering courses in mathematics, may petition to have a chapter, providing it meets the following minimum requirements:

- (1) High schools must offer at least two years of algebra and one year of geometry, or their equivalent, and a minimum of one year of more advanced mathematics. These requirements cannot be fulfilled by courses in general mathematics, general business mathematics, or arithmetic. Two-year colleges must offer at least three courses beyond pre-calculus, which may include calculus, differential equations, linear algebra, or statistics.
- (2) The school must employ at least one teacher whose primary teaching field is mathematics and who has completed an undergraduate mathematics major or its equivalent at an accredited college or university. The equivalent of a mathematics major shall be understood to include a minimum of six college mathematics courses at the calculus level or above.
- (3) The principal, or other chief administrative officer of the institution, must approve the petition.
- (4) An initial charter fee, along with the regular initiation fee for each member, shall be paid to the Office of the Secretary-Treasurer before a charter is granted. If a check accompanies the petition, it will be held until the institution is granted a charter, at which time it will be cashed. If the charter is denied, the check will be returned to the petitioning school with an explanation of why the charter was denied.
- (5) High school chapters shall be admitted for membership on the approval of the president and the governor of the appropriate region. Two-year college chapters shall be admitted for membership on the approval of the president and the AMATYC representative. Should either deny a petition for membership, the school may appeal the decision to the Governing Council for consideration. A two-thirds vote of the Governing Council shall be required to approve such a chapter for

membership.

(6) The petition should be submitted on the form provided by the National Office. A paragraph listing topics covered in each of the mathematics courses offered by your school including textbooks used must be submitted with each petition. The names of your charter members must also be included.

IV. LOCAL CHAPTER ORGANIZATION

Each chapter is free to set up its own organization, officers, and finances with the following restrictions imposed by the National Constitution. We encourage every Mu Alpha Theta chapter to have their own written chapter constitution spelling out its own rules and regulations. (The National Constitution appears in Chapter XIII of this handbook.) Prospective members should have a written copy of the chapter's requirements to join and to remain a member in good standing.

(1) Each chapter **must** have a designated sponsor and the national secretary-treasurer must be kept informed of the current sponsor's name, email address, and updated school information.

(2) The minimum membership requirements set forth by the national organization must be met by all initiates.

(3) A complete and accurate list of all initiates, accompanied by their initiation fees, must be received by the Office of the Secretary-Treasurer **within one month** of the member's initiation. Failure to notify the National Office of new members in a timely manner can lead to cancellation of the chapter's charter.

(4) Chapters not submitting initiates for two years will be classified as inactive. A chapter remains inactive and cannot purchase Mu Alpha Theta materials until new members are submitted again. Inactive chapters that continue to initiate new members, but fail to notify the National Office of their names or pay their initiation fees will be deemed to be in violation of our National Constitution and will forfeit the charter for their chapter.

(4) Each chapter must hold regular meetings, open to all interested persons, and not consider itself to be merely an honorary society recognizing high grade averages. At the minimum, one meeting every month is recommended.

Existing chapters vary considerably in their structure. Some are quite formal, having a constitution, prescribed initiation rites, rules concerning attendance, etc. Others have little formal structure and are based completely on sharing a common interest in mathematics.

For chapters that desire a more formal structure, a model constitution is presented below. Any chapter, however, is free to write its own constitution or to make modifications in the one shown on the following pages, provided that there is no conflict with the provisions of the National Constitution for Mu Alpha Theta.

MODEL CHAPTER CONSTITUTION

Article 1. Purpose

Section 1. The purpose of this organization is to promote scholarship in and enjoyment and understanding of mathematics among high school (or two-year college) students.

Article 2. Name

Section 1. The name of this chapter shall be the _____ High School (or Two-Year College) Chapter of MAΘ.

Article 3. Sponsor

Section 1. The organization shall at all times have a designated sponsor.

Section 2. The national secretary-treasurer **must** be kept informed of the current sponsor's name, email address, and the school's address.

Article 4. Membership

Section 1. Students are classified as members or associates at high schools and members at two-year colleges.

Section 2. Members are high school students in grades 9 through 12, at the school where their permanent record resides, who have completed the equivalent of two years of college preparatory mathematics, including algebra and geometry, and in addition have completed or are enrolled in a still more advanced course, providing their mathematical work was done with distinction. On the 4-point grading scale, this shall mean at least a 3.0 grade point average. Two-year college students who were members of Mu Alpha Theta in high school are immediately eligible for membership in their college's chapter. Students are also eligible if they have had at least one mathematics course at or above the College Algebra/ Precalculus level with a 3.0 GPA overall in all two-year college mathematics courses at or above the College Algebra/Precalculus level.

(NOTE: At this point the chapter may insert its own criterion for grade point average. On the 4.0 scale, this must be at least a 3.0 average in mathematics, although individual chapters may impose higher standards.)

Section 3. Associates are high school students in grades 9 through 12, at the school

where their permanent record resides, who have completed one year of algebra, or its equivalent, with distinction and are currently enrolled in a higher math course. Associates are not members of Mu Alpha Theta but are likely candidates for membership. Associates do not pay the initiation fee but are eligible to be listed with the National Office, should they wish to participate in Mu Alpha Theta national math contests. While they are not entitled to vote nor hold office in their chapter, they are entitled to attend and be heard at meetings. Associates planning to attend the national convention must be registered with the National Office. A student may remain an associate for only one year and then, if eligible, must be inducted as a member of Mu Alpha Theta. Any student who is not eligible to be made a member will be deleted as an associate, but may continue to participate in the math club activities.

Section 4. Members shall demonstrate the ability to work with others, to conduct independent research, and shall possess qualities of industry, initiative, and reliability. No student will be denied membership on account of race, religion, color, creed, ethnicity, national origin, gender, sexual preference and/or physical disability.

Section 5. Selection of members shall be made by the Admissions Committee (See Article 7) composed of the sponsor and the officers of the chapter.

(NOTE: The chapter may also include a section specifying attendance requirements for continued membership in good standing. Certainly it is intended that all members take an active role in the chapter. Because of the difficulties in record keeping, however, the National Office does not drop the names of students once they have been elected to membership.)

Article 5. Meetings

Section 1. The chapter shall meet regularly at a specified time that is agreeable to both the Admissions Committee and the school administration.

Section 2. Meetings are open to all interested persons, not just members of Mu Alpha Theta.

Section 3. At regular meetings, the program shall consist of a mathematical presentation (e.g., talk, film, etc.), mathematical enrichment and recreational topics, as well as conducting any necessary chapter business.

Section 4. In all matters of conduct not specifically addressed in this constitution, the chapter shall be guided by Robert's Rules of Order.

Article 6. Officers

Section 1. The chapter officers shall be the following: president, vice-president, secretary, and the treasurer.

Section 2. Election of officers shall take place during the final regular spring meeting.

Section 3. The term of office is one school year.

Section 4. An officer may not hold the same office for more than one year.

Article 7. Duties of Officers

Section 1. The president shall be the chief executive officer of the chapter. He or she shall preside at all business sessions, and it shall be the duty of the president to direct the activities of the organization.

Section 2. The vice-president shall perform the duties of the president at times when the president is absent, and shall also serve as program chairman.

Section 3. The secretary shall keep an accurate record of all proceedings. He or she shall, with the approval of the sponsor, certify the names of new members, forwarding these (together with initiation fees) to the National Office **within one month** of initiation.

Section 4. The treasurer shall, with the help of the chapter sponsor, handle all money belonging to the chapter and shall maintain an accurate record of financial transactions. (NOTE: There are no national dues other than the original initiation fee. Each chapter is free to assess local dues if desired. Typically, chapter funds are kept in a school account.)

Section 5. The officers shall serve, with the sponsors, as the Admissions Committee and Executive Committee, having authority to transact all routine business and to select new members of the chapter.

Article 8. Emblems

Section 1. Each member of this chapter shall be entitled to wear the Mu Alpha Theta insignia (buttons, pins, charms, patches, medallions, tassels, or t-shirts) available from the National Office and honor cords or tassels at graduation.

(NOTE: Present price lists and descriptions of products are printed in Appendix C of the *Handbook*. Before ordering, schools should check online for any changes in items of pricing.)

Article 9. Constitution

Section 1. Concurrence of two-thirds of the members shall be required to accept this constitution.

Section 2. Any amendment to this constitution must be presented by a member in the form of a motion during a business meeting. It must then be placed on the table until the following meeting, at which time it will become effective provided it is passed by a two-thirds majority of members voting.

Section 3. The local chapter constitution must not violate any stipulation of the *National Constitution*.

(NOTE: The National Constitution is printed in Chapter XIII of this handbook.)

Section 4. By-laws may be adopted to amplify the constitution and to take care of details.

V. SPONSOR RESPONSIBILITIES

Chapter sponsors, (sometimes called moderators or facilitators) are responsible for helping members run their chapter of Mu Alpha Theta. They provide oversight and guidance to student officers of the club, including financial responsibility for club funds. Often a sponsor will set up a Mu Alpha Theta account with their school bookkeeper or treasurer in which they deposit all club monies collected. This provides school oversight of funds. Sponsors provide a supervised meeting space for the club and act as liaison, when necessary, to the school administration and members' parents. Along with club officers, sponsors should plan periodic meetings, at least monthly, where a math talk or activity is planned. Some chapters invite speakers from a local college, university, or industry to speak. Some meetings may be devoted to taking mathematical tests for competitions, practice sessions for competitions, working on math research topics for student members to give "chalk talks" at a future meeting, playing math-related games, etc. Sponsors accompany students to mathematical competitions or events away from their school and arrange for chaperones, transportation, permission forms, and other details of such field trips. It is the sponsor's duty to update school information online, by email, or by calling the National Office with changes, should they occur. It is especially important that a current email address for each sponsor is available.

It is the sponsor's responsibility to alert math teachers at their school of the chapter and its mission, ask for names of qualified students for membership, check grades to insure eligibility, and present these names to the admission committee of the club. Alternatively, student officers can post notices and posters explaining the mission of Mu Alpha Theta and ask eligible students to apply for membership. In this case, students are asked to fill out a form showing their eligibility. Some forms include questions about the student's interest in mathematics or ask them to provide other information about their qualifications, besides their math grades. Sponsors should still check that an applicant's grades meet the chapter's minimum requirement for membership, before the admission committee decides on new members. No student shall be recommended for consideration that does not meet the minimum qualifications. Individual chapters may impose additional requirements; however, no student will be denied membership on account of race, religion, color, creed, ethnicity, national origin, gender, sexual preference, and/or physical disability.

Some clubs have attendance or service requirements for continued membership. This depends on the school's constitution. Sponsors should make sure applicants are aware of all requirements and understand how members will be chosen and how they maintain their membership, when they apply. It should be noted that Mu Alpha Theta was not specifically set up as a service organization but that many chapters have added math tutoring or service activities to round out their yearly calendar of events.

Once members are chosen, it is the sponsor's responsibility to submit those names to the National Office **within one month** of their initiation into the chapter. This can be done by submitting names into the online order system accessible from our website at www.mualphatheta.org, by email, or by mail. Instructions for the online order system can be found online under Teacher Resources > Certificates.

If a student transfers to your school who is already a member, we can transfer their membership to your chapter without charge. Email their name and prior school to the National Office. Former high school members will be transferred without charge to a two-year college chapter as well.

Sponsors should be aware that once a student's name has been entered into the national database, it remains there forever, unless it was placed there by mistake. There is no requirement for continued membership at the national level. The student's name will be moved from the school's current member table to a graduated students table, when the student reaches their year of graduation. Sponsors should alert the National Office if their current membership list, available online, does not agree with their records.

Sponsors may ask the chapter secretary to enter names. However, it is the sponsor's responsibility to approve each new member and confirm their eligibility before turning the names over to a student officer. Sponsors may also email new members to the National Office grouped by year of graduation. Sponsors should be sure that each student submitted for national membership really wishes to participate. It is hoped that chosen members will realize Mu Alpha Theta is more than just an honor society and will strive to participate in stimulating mathematical activities with the chapter.

Prior to submitting names to the National Office, sponsors should make sure new members have paid their registration fee that must be sent to have their name added to the Mu Alpha Theta database. Many schools choose to pay the fee for their students. Fees should be paid with a single check or credit card purchase. It is best to set a deadline for new members and then wait until all have paid before submitting names for certificates. Names are accepted year-round. **If a school does not submit new member names for more than two years, their chapter will become inactive.** Should a chapter become inactive, the school will be required to remove the "Mu Alpha Theta" name from the school's math club at that time and students must be informed not to list membership in Mu Alpha Theta on a college resume if they join the math club. Unless we have their name in our database, we cannot confirm their membership.

For their registration fee, each student receives a certificate suitable for framing, a membership card, and a decal.

There is a small fee to reprint a certificate, if a name is submitted incorrectly. We will reprint and send corrected certificates free of charge, if an error is our fault. Sponsors should notify the office by email or phone as soon as errors are discovered, so we can send a replacement certificate.

Sponsors or a student officer may enter the names of associates online at any time. Associates are defined as high school students in grades 9 through 12, at the school where their permanent record resides, who have completed one year of algebra, or its equivalent, with distinction and are currently enrolled in a higher math course. Associates are not members of Mu Alpha Theta but are likely candidates for membership. Associates do not pay the initiation fee but are eligible to be listed with the National Office, should they wish to participate in Mu Alpha Theta national math contests. While they are not entitled to vote nor hold office in their chapter, they are entitled to attend and be heard at meetings. **A student may remain an associate for only one year and then, if eligible, must be inducted as a member of Mu Alpha Theta or be removed from the database.** Sponsors may also notify the National Office to remove associates if they do not become members.

Mu Alpha Theta will accept a school purchase order for orders, as long as the invoice is paid within a one month period. **Sponsors are responsible for making sure that the bill is paid and that the National Office receives a copy of the purchase order, should special instructions need to be followed.** We will email a receipt notifying the sponsor that the school has paid the bill, once a check arrives. Our fax number is 405-325-7184.

Sponsors are in charge of ordering insignia merchandise and honor cords for their members, if desired. Students or parents should not request merchandise by separate check. The current order form and price list can be found online at www.mualphatheta.org under Teacher Resources > Merchandise. Pictures of merchandise are viewable there and in the online system. It is best to check online to ensure current prices are used when ordering. Only active chapters that have enrolled members during the past two years may purchase merchandise. Please restrict the wearing of Mu Alpha Theta t-shirts or insignia merchandise to current members, associates, or former members of the club. Sponsors or proud parents may also wish to purchase t-shirts to wear. **The National Office reserves the right to refuse the sale of insignia materials to non-members or chapters without enough members to warrant the amount of materials ordered.** An honor cord or tassel is sent when a small donation is made to the Mu Alpha Theta Educational Foundation. Donations go to support awards, grants, and scholarships for deserving members, sponsors, or chapters and to support other educational activities of Mu Alpha Theta. **Only members are eligible to wear the honor cord at graduation.**

Mu Alpha Theta has a number of special awards, scholarships, and grants that it presents to outstanding members, sponsors, and chapters. Descriptions of these awards, along with applications, are available online. Funds are available to chapters by applying for a Chapter Grant to financially support their activities. Sponsors and members should submit the names of those worthy of one of these awards. Clubs may choose to have a selection committee review nominated students, since the number of students submitted per chapter is limited. Mu Alpha Theta also offers scholarships for graduating members. Summer study or research grants are available for members as well. Please visit and have your students visit our website often to keep up with all the benefits of membership.

Each fall and spring, a newsletter is posted at our website, www.mualphatheta.org and will be emailed to chapter sponsors. Sponsors should read the newsletter thoroughly. Grant and scholarship opportunities are highlighted in the newsletter. Sponsors should watch for this information and share it with their members or remind members to read the newsletter online. The newsletter includes important information about policy changes, award and grant deadlines, Governing Council decisions, news of national and regional competitions, news from the National Office, and articles of interest on math.

It is important for sponsors to maintain a current email address with the National Office. This may be done online, by emailing matheta@ou.edu, or by phone. Sponsors should also add maomailer@ou.edu to their safe list as all newsletters and updates are emailed from this address.

Elections of officers to the Governing Council – our Board of Directors – are held in the spring during years ending with an even number. It is the responsibility of chapter sponsors to be aware of national issues and vote in national elections. Constitutional changes to the National Constitution may also be sent out with the spring ballot. Voting is done by email. Each active chapter has one vote. Sponsors are encouraged to run for national office or work on a national committee to help Mu Alpha Theta grow and remain a positive influence on students.

Sponsors are encouraged to call or email Kay Weiss at the National Office for answers to any questions they may have. 405-325-4489 or matheta@ou.edu

VI. THE MU ALPHA THETA WEBSITE

The Mu Alpha Theta website is located at www.mualphatheta.org. The menu at the left of the homepage links to hundreds of pages of useful information; math and contest links; scholarship, award and grant information; links to fun math activities; student math journals; and access to our online system. Tests with answers from past national convention contests, as well as, state and regional competitions are listed under > National Conventions > Past Tests.

Much of the information in the *Sponsor's Handbook* is located under > Teacher Resources, including order forms with current pricing for certificates and merchandise. Under the About Us > Officers section are links to the current Governing Council members with contact information, and current Student Delegates. About Us > Structure describes the governance of Mu Alpha Theta and includes a link to our National Constitution. Information is also available about the Mu Alpha Theta Educational Foundation. Current newsletters are posted each fall and spring. Past newsletters are also archived.

When a chapter is chartered, a chapter ID number is assigned and the sponsor is given an initial password for the online system. The online system allows the sponsor access to the national database and online ordering system. Here, the sponsor can see their current members and associates, enter associates, look up other chapters of Mu Alpha Theta with the "Find a Chapter" link, update sponsor and school information, change their password, register new members, and order merchandise. Sponsors and student members are assigned an individual identification number.

Instructions for using the online system are listed below. These are subject to change as we update and edit the online system. Mu Alpha Theta accepts checks, purchase orders, Visa, MasterCard, and Discover credit cards, or debit cards for orders.

Whenever questions arise, just email Kay Weiss at matheta@ou.edu or call 405-325-4489. The National Office is usually staffed Monday through Friday from 10:00 a.m. to 6 p.m. Central Time. The office is closed during national holidays, during the winter school break, and may be closed during two weeks of the summer, including the week of the National Convention.

Instructions for Mu Alpha Theta Online Order System

Go to the website at www.mualphatheta.org and press the "Chapter Login" button at the top. Enter your Chapter ID number on the top line and password on the second line down.

Prior to registering new members, check your current members by pressing the *View Members* on the left. Make sure nobody being added is already a member. Our fee is paid one-time per student.

Update your email address, if necessary by pressing *Edit Contact Information*.

To register new members, push the link on the left marked: *Register New Members*. Enter the number needed. If that is all you want, go to Checkout. Or, click the *Purchase Merchandise* link to order other things and then go to Checkout. Newly registered members will receive a certificate, a membership card, and a decal when their one-time fee is paid.

At Checkout, enter a purchase order number or credit card number. **If you have a check to send, enter the check number as the purchase order number.** When using a check, the amount on the check must match the amount due exactly. List the name of the person to receive the invoice, when using a purchase order number. If the person receiving the invoice is the same as the buyer, just click the box to fill in information.

The current lead sponsor will be emailed an invoice or receipt to the email address listed in our database. Please give invoices to the proper person to get a check sent. If you have a check, mail it with the invoice.

To enter the names of your new members, click on the *Add Members* link on the left.

Select a year of graduation and enter the names. You may cut and paste from a Word Document or Spreadsheet, or enter by typing. The system will accept only the number of names for the registrations ordered. **Do not leave any blank lines between names and make sure there are no blank spaces after the last name in the list.**

Press the *Next* button at the bottom.

You should see the names you entered in the table. If there are any mistakes, you can edit them here.

You may go back and select another graduation year. Enter names again and press *Next*, or you may send the names first for that year by pressing the *Submit Names* button at the bottom of the second page.

Continue until all students are entered. When everything is correct, press the ***Submit Names*** button at the very bottom of the second page.

If you are idle for more than an hour, the system will log you out and the names will be lost. **Make sure to press the *Submit Names* button!**

If you have to log out before sending all names, submit what you have. When you log back in, press the *Add Members* button on the left to add the remainder of your names. Problems: matheta@ou.edu or 405-325-4489.

VII. SAMPLE INITIATION CEREMONY

Local organization of Mu Alpha Theta chapters varies, but there is the common bond of interest in mathematics. Many chapters choose to emphasize this unity of purpose with a formal initiation ceremony for new members. If such a ceremony is held, it is an excellent time to invite parents of the initiates to attend.

For the initiation program some chapters invite a speaker from a neighboring college or university or from a local business or industry, and then call initiates forward to receive their membership certificates without any formal ceremony.

Chapters are encouraged to develop their own initiation program. However in order to assist those chapters that want a more formal ceremony, a sample is printed below.

Sample Initiation Ceremony

(This particular ceremony is based on one originally contributed by Nellie Kitchens, a member of the first Governing Council of Mu Alpha Theta, modified by Carol Ropp, and edited in 2012 by Kay Weiss to bring it up to date.)

President: Candidates, you are being presented for initiation into Mu Alpha Theta, the National High School and Two-Year College Mathematics Honor Society. It is an honor to be selected for membership in this organization which has over 2000 chapters across the United States and in many foreign countries.

Each of you meets the requirements for membership, including work done with distinction in college preparatory mathematics.

The principal purpose of Mu Alpha Theta is to stimulate a deeper interest in mathematics. Thus, it is desirable that you be given some brief instruction that may encourage you to consider the deeper meaning and historical significance of mathematics.

First Speaker: I speak of the oldest history of mathematics. The arithmetic, trigonometry, number theory, and astronomy of the Babylonians and Egyptians was far reaching and contributed much to progress in the ancient world. From calculating the circumference of the earth to the building of the pyramids, man began to apply mathematics.

It took many years for the concept of the number zero to develop, but it made possible the algorithms for addition and multiplication which

became important tools in human progress.

Greek geometry involved a new emphasis on the power of reason and served as a foundation for philosophy. Archimedes found ways to determine areas and volumes and used mathematics to engineer machines.

Next came the age of exploration and enlightenment.

Second Speaker: With the study of algebra and equations, logarithms and probability, humans found a new language so they could understand the world around them as never before.

With one overpowering stroke of genius, a young man in his early twenties, Sir Isaac Newton, invented The Calculus, discovered the Law of Gravity, Three Laws of Motion, and how mathematics could predict the very orbits of the planets. With this mathematics, mankind had the tools needed to discover and explain, and a way to develop the technology that would bring man to a new age of scientific understanding.

We learned from the likes of Descartes, Fermat, Leibniz, Riemann, and Fourier. Theory from Galois, Cauchy, Maxwell, and Hilbert. The names may not all be familiar, but the results have impacted each and every one of us today.

From the mathematics of Quantum Mechanics to the Theory of Relativity man learned of matter and light. John Von Neumann, another leader in the new mathematics, developed “game theory”, merging concepts in strategy with mathematics principles. He also developed the background theory for the invention of digital computers.

Third Speaker: The applications of 20th century higher mathematics have radically changed virtually every aspect of our lives. In the physical and life sciences, new developments have contributed to understanding areas as diverse as mass - energy relationships to population growth. Business and economics have benefited from new theories in statistics and group analysis. Advances in medical technology and communications abound. Applications of new kinds of mathematics have arisen. Knot theory is being used to explain DNA’s structure, while topology attempts to understand the shape of our universe. Perhaps the most important development attributed to higher math is the field of computer science and the development of user-friendly computers, with its far-reaching applications to virtually every aspect of our lives. Mathematics has taken a large step from its role

in the past decades as an obscure mental exercise of the few into a position of prominence in modern life, making our world both more comfortable and interesting.

Fourth Speaker: It is time now to consider the future. The mathematics of the 21st century promises mankind even more. Telecommunications without wires, words and pictures transmitted via algebraic codes. The exploration described by the previous speakers represents only the beginning of our understanding of the mathematical world. Rather than developing at a constant rate, discoveries build one upon the other, each leading to more innovative theories. Our knowledge grows exponentially, and its applications grow wider in scope. In summary, then, the mathematics of the future relies increasingly upon man's ability to imagine and create, as well as his ability to reason.

Mankind awaits new mathematical and scientific theories to complete the work of the great men and women who have come before. Just as mathematical principles and research have helped us understand so much, we anticipate further research and development to allow us greater understanding of the world around us.

It is with proud recognition of your skill and interest in mathematics that we welcome you to Mu Alpha Theta. May we someday add your name to the list of great mathematicians who have helped the world advance.

President: You have now heard a brief history of mathematics and its gifts to all. More is needed of you. You must exchange freely your ideas, and you must continue to grow through all your years.

You see before you a replica of the insignia of Mu Alpha Theta. Blue represents truth as unlimited as the sky. Gold shines as a symbol that mathematics is indeed a valuable treasure. The insignia represents, above all, a high point in the history of the world, an important relationship in mathematics - one that combines the mystery, the challenge, and the beauty of numbers with a simple geometric figure, the right triangle. Let this simple geometric proof of the Pythagorean Theorem be a symbol for you and serve as a challenge to encourage your further enjoyment and study of mathematics.

Sponsor: Candidates, please rise. If you agree to accept the challenge of membership in this organization, you should answer simply, "I do."

(pause)

I now declare you to be members of Mu Alpha Theta. As your name is called, please step forward to accept your membership certificate. *Congratulations.*

VIII. ACTIVITIES, CONTESTS, AND PROJECTS

Some of the following activities might be suitable for club programs, but in general the suggestions pertain to other kinds of activities. Chapter Grant funding may be available from Mu Alpha Theta to help support events similar to some listed below.

(1) As a service project, provide tutoring for students who are having difficulties with mathematics courses. Such sessions are most commonly held after school. Students may also tutor online through the Study Buddy program. For more information see www.mualphatheta.org > Study Buddy Tutoring.

(2) Maintain a bulletin board in the school and possibly one in the public library. Make banners with catchy mathematical phrases and hang them around your classroom. The National Council of Teachers of Mathematics publishes a booklet entitled *How to Use Your Bulletin Board*.

(3) Sponsor an assembly program for the entire school. One possibility is to organize the program around the theme of mathematical occupations and entitle it “What’s My Line?” Contestants might then represent various mathematical occupations, with a panel of students trying to guess what each occupation is. The pamphlet, *Careers in Mathematics*, published by the National Council of Teachers of Mathematics, should be of assistance in such a program. SIAM also provides a brochure describing math careers at <http://www.siam.org/careers/thinking/pdf/brochure.pdf>, or check out <http://www.careercornerstone.org/>. Or, what about presenting math topics that are fun, such as: The Mathematics of Juggling. A speaker can describe the mathematics involved and teach basic juggling.

(4) Publish a “challenge” problem in each issue of the school newspaper. Recognition might then be given at the end of the year to the student having submitted the greatest number of correct solutions.

(5) Publish a chapter newsletter containing articles by students, announcements, challenge problems, etc. Or publish a website for your local chapter.

(6) Sponsor a Mathematics Holiday Party with mathematical games for entertainment. An excellent reference for such games is *The Scientific American Book of Puzzles and Diversions* (two volumes) by Martin Gardner, published by Simon and Schuster.

(7) Sponsor classes, before or after school, on topics of special interest, such as the use of hand held calculators, elementary computer programming, etc.

(8) Stimulate interest and participation in mathematics contests. In particular see

contests such as:

- a) **Mu Alpha Theta National Contests: Log1 Contest, Rocket City Math League, & Mathematical Minutes Video Contest**
- b) The Mathematical Association of America: AMC 8, AMC 10, AMC 12, AIME, USAMO, USAJMO, MOSP, & IMO. For information, see www.amc.maa.org.
- c) Contests run by state organizations associated with NCTM or MA Θ
- d) ARML provides a regional competition for statewide teams
- e) Moody's Mega Math Challenge is offered by SIAM in the spring for schools in selected states
- f) Actuarial Foundation's Project Math Minds

(9) Sponsor visits and lectures by mathematicians from nearby colleges and universities or from industry. Chapter Grant funding may be available.

(10) Sponsor field trips to nearby computer installations, industrial complexes, national laboratories, etc., that are related to mathematics and science. Chapter Grant funding may be available.

(11) Sponsor one meeting each year especially for parents. This might be the annual initiation ceremony, but could also be a program involving mathematical games in which parents compete with students. Many mathematical topics can be discussed that do not require an extensive background in mathematics.

(12) Sponsor a fund raising project. Here are some suggestions:

- a) A dance after a football or basketball game
- b) Sell refreshments at athletic contests, school plays, etc.
- c) Car wash
- d) Raffle
- e) Donkey Basketball Game
- f) As a noontime activity, charge 5 cents for twenty tosses of a needle to determine an approximation of the number pi. Post results at regular intervals to show the increasing accuracy. (This is known as the Buffon Needle Problem, and you can find a statement of the problem on pages 246-247 of *Mathematics and the Imagination* by Kasner and Newman)
- g) Make and sell SOMA cubes (See Chapter VI of *The Second Scientific American Book of Mathematical Puzzles* by Martin Gardner)
- h) Celebrate Pi Date (March 14): sell pies, raffle tickets to throw pies at teachers
- i) Run a math tournament and invite middle schools or other high schools
- j) Do a school calendar

k) Create Flash Cards for various math and science classes to sell to students at the school. Cards can include facts on topics from different classes, important formulas and what they are used to solve, geometry theorems and proofs, etc. Format in the computer and print on card stock. You can color code each course. Prices can range of \$5 for 20 cards to \$15 for packs of 80 cards.

(13) Establish an award for the outstanding mathematics student each year.

(14) Sponsor a regional meeting of Mu Alpha Theta for chapters in your area. There are funds available from the National Office. (See Chapter IX).

(15) Complement mathematics activities with parties and picnics.

(16) Watch for opportunities to make presentations in elementary and middle schools near-by. Consider a meeting especially attractive to middle school students who may later become active in the chapter. Visual displays, math fairs, and short illustrated talks are welcomed by many elementary teachers as a change of pace; and they provide some good experience for chapter members.

(17) Submit an article and include pictures for the Mu Alpha Theta newsletter. Write about a math topic or a chapter event.

(18) Do a scrapbook showing the activities of your club during the year.

(19) Find activities online at sites like: <http://wims.unice.fr/wims/wims.cgi>.

(20) Get a number of mathematical board games and set up a time for students and teachers to play. Games like Set, Challenge 24, tangrams, Knock Out, Krypto, Shut the Box, etc. can be purchased locally or at online outlets. All games are simple for students of all levels, and provide fun and engaging activity for students and teachers. Have Mu Alpha Theta members make up instructions for each game. Provide prizes for winners.

(21) Make up your own version of Mathematics Jeopardy. Set up teams that compete against each other, topics range from pre-algebra to calculus, with 4 or 5 categories per game. Many schools have Quiz Team equipment for teams to “buzz” in answers.

(22) Use past national convention tests to stimulate interest in math contests. These can be found at www.mualphatheta.org > National Convention > Past Tests. Answers and worked out problems are available. For fun, try the 2008 Mystery Test.

IX. STATE MU ALPHA THETA ORGANIZATIONS

The Governing Council of Mu Alpha Theta is interested in promoting growth of regional and state Mu Alpha Theta affiliate organizations. The exchange of ideas between chapters, the expansion of a student's mathematical horizon while listening to talks by college mathematicians, the challenge found in talks by other students, all of these serve to generate enthusiasm and interest in mathematics and in the local chapters of Mu Alpha Theta.

The first regional meeting of Mu Alpha Theta was held in 1958 on the campus of the University of Oklahoma, and was organized by Josephine Andree. A regional meeting was considered to be one at which three or more chapters gathered to talk about mathematics; such meetings might involve students from several states or from only a section of one state.

In 1961, the chapters in the state of Louisiana formed the first state organization of Mu Alpha Theta. Since that time other states have added a state organization, including Florida, Mississippi, and Tennessee. The structure of the state organization should emphasize student involvement in program planning and arrangements for meetings. (A copy of a model constitution for a state organization is printed at the end of this section.)

Schools wishing to start a state Mu Alpha Theta organization should contact the National Office for approval of the state constitution and for permission to use "Mu Alpha Theta" in the title of that organization's name. Governing Council approval is required by any group before "Mu Alpha Theta" may be used. State organizations are responsible for keeping the National Office updated, at least once a year, on their activities, officers, and any changes to their organizational or financial structure. Mu Alpha Theta does not provide financial oversight to state organizations and is not legally responsible for activities or liabilities incurred by state organizations. State organizations that collect dues are responsible for the proper use of all money collected to benefit their member schools, must have their own tax identification number from the IRS, and file a yearly 990 tax form. State organizations may need to incorporate as a nonprofit organization if their income exceeds \$5000 a year. Organizers are responsible for checking state and federal laws regarding educational organizations in their home state before beginning operation.

In order to help those planning regional or state meetings, the following list of suggestions has been prepared. Note in item 8 that the National Office offers some financial assistance for such meetings.

(1) The date of the meeting, the site, and the sponsoring chapter (or chapters) should

be established a year in advance. It is recommended that there be a letter from an appropriate school official confirming that the facilities are available. (Some colleges and universities will provide facilities without charge for such meetings. Most do charge, however.)

(2) A preliminary announcement should be sent to all chapters in the state or region and to the National Office. Current active chapters can be found by logging in to the online system and choosing the appropriate states from the interactive “Find a Chapter” link on the left. Schools without active chapters of Mu Alpha Theta may also be invited to attend, but you will have to rely on local or regional sources for mailing addresses.

This preliminary announcement should include:

- a) The date and site of the meeting
- b) An approximate time outline of events occurring during the meeting
- c) Announcement concerning preparation of student papers, if such papers are to be a part of the program
- d) Announcement concerning math competitions, if there will be some
- e) Information about housing, meals, and registration fees

(3) Please notify the National Office once the site and date of the meeting have been determined. Reimbursement of some expenses are available upon submission of information to the National Office. See (10) below.

(4) Advertise the meeting through state departments of education and through teacher groups such as those affiliated with the National Council of Teachers of Mathematics and our own newsletters. Press releases to area newspapers are also appropriate.

(5) After the date and site have been determined, details of the program should be completed, and there may be staff members in neighboring colleges and universities who will help with this. The program should feature talks by professional mathematicians and by students; usually speakers will not ask for honorariums, but travel reimbursement may be appropriate. There should also be mathematics competitions and social activities; Math competitions have become an especially popular feature of such programs. The following program format is offered as a typical one for a meeting that begins on Friday evening and runs through Saturday.

Activities for Friday Evening

- a) General Session (This could include official greetings, a major mathematical talk, the introduction of state (or regional) officers, and introduction of candidates for office.)
- b) Topic Tests

c) Social Event (Dance, mixer, etc.)

Activities for Saturday

- a) General Session (Mathematical talks)
- b) Math Bowl (or other types of competition such as a single examination)
- c) Chalk Talks by students on mathematical topics of interest
- d) Speaker Sessions (At these sessions, several scheduled at the same time, student papers, as well as talks by professional mathematicians, should be featured.)
- e) Luncheon (perhaps with a luncheon speaker)
- f) Business meeting, including election and installation of new officers, both adult and student
- g) Presentation of any awards or trophies At some time during the meeting, it should be arranged for sponsors (possibly together with one student from each chapter) to get together to discuss the present convention, the state (and regional) organization, and plans for future meetings.

(6) Copies of the final program should be mailed to all those who were sent preliminary announcements. Again request information on anticipated attendance (to help in planning) and it may be appropriate to set some deadlines for return of this information.

(7) If possible arrangements should be made for a display of mathematical models, puzzles, and books, including computer related materials. The National Office can supply (on consignment) pins, charms, buttons, patches, medallions, t-shirts and honor cords for sale at the convention.

(8) The National Office will provide financial support on the following basis: \$50 total for the first three chapters in attendance, with an additional \$10 for each additional chapter, up to a maximum of \$150. As an illustration, if 18 chapters were represented at the convention, the meeting would qualify for the maximum \$150. Payment will be forwarded upon receipt of information, after the event. (See Item 10 below.)

This financial support is intended for expenses such as postage, printing, speakers' travel, etc., and not for entertainment, refreshments, etc., which should be covered by registration fees.

In addition, the National Office will reimburse travel expenses of up to \$200 for a current member of the Governing Council to attend the meeting and make a presentation, when requested.

(9) Following the meeting, write thank-you notes to administration officials of the host school and to speakers and others who helped with the meeting.

(10) Send a report to the National Office in order to obtain the appropriate financial support. Include also a copy of the program for the meeting, the names and addresses of schools in attendance, the number of students from each school attending (if available), and a summary of how things went.

MODEL STATE CONSTITUTION

(Based on the Florida Association of Mu Alpha Theta Constitution)

Article I. Name

The name of this organization shall be the _____ Association of Mu Alpha Theta.
state

Article II. Purpose

The purpose of this organization is to inspire keen interest in mathematics, develop strong scholarship in the subject, and promote the enjoyment of mathematics among high school and two-year college mathematics students through the unification of the Mu Alpha Theta chapters in the state of _____. Notwithstanding any other provision of those articles, the purpose for which the association is organized is exclusively religious, charitable, scientific, literary, and educational within the meaning of 501(c)(3) of the Internal Revenue Code of 1954 or the corresponding provision of any further United States Internal Revenue Law.

Article III. Affiliation and Coordination

The _____ Association of Mu Alpha Theta shall be governed by the academic and financial policies laid down in the National Mu Alpha Theta constitution.

Article IV. Membership

A. Any active chapter in _____ is eligible for membership in the association. Active is defined as a chapter which has paid national and state dues for all members by the designated deadline and which has not had this privilege suspended by the Executive Board.

B. Approval for membership shall be given by the Executive Board upon written application by the chapter and receipt of dues.

C. The Executive Board has the right to declare on probationary status any member chapter that fails to abide by the provision of the Constitution and By-Laws of the organization.

D. Chapters with probationary status shall be reinstated upon review by the Executive Board.

Article V. Officers

A. Officers

1. The elected officers of the organization shall be the President; Vice-President for State Convention; Vice-President for Regional/Statewide Competitions; Vice-President for State Tests; Vice-President for Computer Operations; Secretary; Treasurer; and Regional Directors.
2. The above officers will be nominated either by the Nomination Committee or from the floor of the sponsors' meeting at the annual convention and shall be elected by a majority vote of those sponsors present at the meeting. Each member chapter shall be given one vote. Regional Directors will be elected at the annual state convention by a majority vote of those sponsors in their specific region.
3. Officers elected at the annual sponsor's meeting at the state convention shall hold office from the close of that convention until the close of the next annual state convention. Officers may be elected for consecutive terms.

B. Duties

The duties of the officers shall be as follows:

1. President
 - a. Promote the activities of the organization
 - b. Preside at meetings of the organization
 - c. Represent the organization when necessary
 - d. Administer the policies of the Constitution and the By-Laws
 - e. Appoint a Chairman of the Nomination Committee from among the Regional Directors
 - f. Sign contracts for the state convention
2. Vice-President for State Convention
 - a. Act in the absence of the President and act for the President when requested to do so
 - b. Coordinate the activities of the annual state convention
3. Vice-President for Regional/Statewide Competitions

- a. Coordinate the regional competitions
 - b. Coordinate the writing of tests for regional competitions
 - c. Inform statewide hosts of the test writing responsibilities
 - d. Develop a calendar for regional and statewide competitions
4. Vice-President for State Tests
- a. Coordinate the test writers for all state tests
 - b. Arrange for editing and printing of all tests
 - c. Responsible for testing and coordination between resolution center and scoring room at state convention
5. Vice-President for Computer Operations
- a. Maintain the scoring program
 - b. Train newcomers on the scoring program
 - c. Maintain website
 - d. Maintain online enrollment
 - e. Score the state convention
6. Secretary
- a. Maintain a record of the minutes of all organization meetings
 - b. Handle all correspondence of the organization
 - c. Maintain and disseminate a current Constitution and By-Laws
7. Treasurer
- a. Collect and disburse funds of the organization
 - b. Provide an annual financial report at the state convention
 - c. Maintain a record of all financial transactions of the organization
 - d. Arrange for the filing of the Federal 990 tax form and any necessary state tax forms
8. Regional Directors
- a. Represent their region on the Executive Board
 - b. Assist the Vice-President for Regional/Statewide competitions with competitions in their region.
 - c. Assist regional competition hosts
 - d. Be able to run the scoring program

Article VI: Executive Board

A. There will be an Executive Board composed of the elected officers named under Article IV; the Membership Chairman; the National Mu Alpha Theta Representative; and the _____ Council of Teachers of Mathematics Representative

B. Each member of the Executive Board shall have one vote on the Board.

C. It will be the duty of the Executive Board to manage the affairs and funds of the organization in accordance with the wishes expressed in its general meetings.

D. There shall be a minimum of two regular meetings of the Executive Board each year.

1. Each member of the Executive Board attending a regular meeting, other than one held during the annual state convention, shall be reimbursed for necessary expenses.

2. A majority of the members of the Executive Board constitutes a quorum.

E. In the event an office (besides President) becomes open, the President shall, with approval of the majority of the board, appoint a successor who shall serve out the remainder of the term until the next State Convention. In the event the position of President becomes vacant, the order of succession shall be the Regional Directors in order of seniority. This person shall, with the approval of the majority of the board, appoint a successor to the vacant position. Both of these officers shall serve until the next State Convention.

Article VII: Amendments

This Constitution may be amended by the following procedure:

A. The amendment is presented in writing and distributed at the sponsor's meeting during the state convention.

B. The amendment is approved by two-thirds of the present member schools at the sponsors' meeting. Each member school shall be given one vote.

Article VIII: Parliamentary Procedure

All matters of procedure not specified in this Constitution will be governed by the Revised Robert's Rules of Order.

Article IX: Dissolution

If at any time the organization does cease to carry out the purposes as herein stated; all assets and property held by it, after payment of its liabilities, shall be paid over to the National Mu Alpha Theta Educational Foundation.

Article X: Date of Effectiveness

This Constitution will become effective immediately after being approved.

BY-LAWS

The following constitute the By-Laws of the _____ Association of Mu Alpha Theta. Changes to the By-Laws may be made upon recommendation and approval of the Executive Board.

A. Appointed Positions - The positions of Membership Chairman, Online Mu's News Editor, National Mu Alpha Theta Representative, and Florida Council of Teachers of Mathematics Representative will be appointed by the President with Executive Board approval for one year. At the end of the one year term, an individual may again be appointed to the same position. The duties of these positions shall be as follows:

1. Membership Chairman:
 - a. Promote membership in the organization
 - b. Maintain a list of member chapters
 - c. Maintain a list of all student members of each member chapter
 - d. Maintain a list of sponsors of member chapters
2. Online Mu's News Editor: Act as the Mu's News webmaster
3. National Mu Alpha Theta Representative: Coordinate communications and activities with the National Mu Alpha Theta
4. _____ Council of Teachers of Mathematics Representative: Coordinate communications and activities with the _____ Council of Teachers of Mathematics
5. The President will have the authority to appoint committees as deemed necessary.
6. The President may invite chairs of special committees to the Executive Board meeting with non-voting status and at the expense of the Association.

B. State Headquarters - State headquarters shall be established at the school where the President is sponsor.

C. Regions - Regions for the organization shall be determined by the Executive Board.

D. Dues

1. Each member club shall submit to the state treasury dues on a scale as follows:
 - a. \$_____ registration is required for clubs with 10 or less members
 - b. For clubs with more than 10 members a registration fee of _____ per member is required.
2. These dues shall be used for:

- a. Expenses of the state organization
- b. Cash awards to individual winners at the state convention
- c. Aid to the host school for convention/regional expenses
- d. Aid to the winning Theta, Alpha, and Calculus teams at the state convention to be used for participation at the national convention.
- e. Travel expenses for the Executive Board as necessary
- f. Any and all other Association business as may be deemed necessary for its successful operation

X. NATIONAL CONVENTIONS

The success of the regional meetings led to the establishment of a tradition of annual national conventions. Paul Foerster and Howard Wildman were the sponsors most responsible for the first national convention, held at Trinity University in San Antonio, Texas, August 11-14, 1968. Professional mathematicians presented talks specially prepared for high school students, and there were also excellent presentations by Mu Alpha Theta student members. Students stayed in the college dormitories, and college lecture halls were used for convention meetings.

In more recent years, conventions have been housed at hotels or convention centers. Students usually arrive by dinner time on opening night. The opening night banquet is followed by programming for students and meetings for sponsors. Four days of competitions, speaker sessions and outings follow. At least two award ceremonies are usually held before students leave the last morning. Students are housed four to a room and sponsors, two to a room. Sponsors have the option of paying for a single room. Meals, rooms, testing, t-shirts, and outing costs are covered by a single registration fee. Conventions are usually held mid-July to early August. Registration fees are typically due by May 15. Information about this year's convention can be found online under National Convention.

Each convention includes meetings of the Student Delegate Assembly, with each attending chapter electing a delegate. The Assembly discusses ideas and projects for the improvement of Mu Alpha Theta, and then takes recommendations to the Governing Council. For example, the Student Delegate Assembly initiated a change in the alignment of the four Mu Alpha Theta geographical regions and decided on a sponsor award to be given at national conventions. They wrote the guidelines for the award. Also, the officers of the Assembly (president, vice-president, secretary, and parliamentarian) act in an advisory capacity to the Governing Council during the school year following the convention. New officers for the coming year are elected during this time also. (See chapter on Student Delegate Assembly By-Laws).

Mathematics competitions during the convention include numerous topic tests and students receive awards for their placement on these tests. The scrapbook contest is a regular feature of our national conventions. Chalk talks by students, on a topic announced prior to the convention, have become a competitive speaking event. Students have a set amount of time, usually 7 minutes, to present a talk on the topic. They are judged on knowledge of subject, oral presentation skills, use of time and accuracy of the facts presented. Awards are presented for the best chalk talks. Other competitions and tests are given.

See the Sponsor's Packet for a complete listing of tests and competitions at this year's national convention. The packet can be downloaded from our website at www.mualphatheta.org.

Past conventions are listed below, including their location and hosts:

- 1970 University of Pittsburgh - Pittsburgh, PA
Theodore Romano, Keystone Oaks HS/Richland SR HS, PA
- 1972 Louisiana State University - New Orleans, LA
Brother Leo Harvey, Rummel HS, Chapelle HS, LA
- 1973 University of Wisconsin at Milwaukee - Milwaukee, WI
Mary Lynne Coon, Wauwatosa West HS, WI
- 1974 University of Arkansas - Fayetteville, AR
Marion Crum, Fayetteville HS, AR
- 1976 West Chester State College - West Chester, PA
Philip Conner, Penncrest HS, PA
- 1977 Loras College - Dubuque, IA
Joyce Hubka-Becker, Wahlert HS, IA
- 1978 University of Wisconsin at Stevens Point - Stevens Point, WI
Robert Meyer, Tomahawk HS, WI
- 1979 Athens State College - Athens, AL
Gwen Snoddy & Thomas Thrasher, Austin HS, AL
- 1980 Georgia Institute of Technology - Atlanta, GA
Pam Drummond, Walton HS, GA
- 1981 University of California - Los Angeles, CA
Fred Hansen, La Canada HS & Crescenta Valley HS, CA
- 1982 Washington University - St. Louis, MO
Akehiko Takahashi, Wentzville HS, MO
- 1983 University of Oklahoma - Norman, OK
David Drennan, Norman HS, Norman, OK
Don Young, Putnam City West HS, Oklahoma City, OK

- 1984 Tulane University - New Orleans, LA
Claudia Carter, LA State MAΘ, St. Mary's Dominican HS, LA
- 1985 The Kamehameha Schools - Honolulu, HI
Jeanne Nelson, The Kamehameha Schools, HI
- 1986 University of Miami - Miami, FL
Helen Dostal, North Miami Beach SR HS, N. Miami Beach, FL
Frances McCreary, Coral Springs HS, FL
- 1987 University of Washington - Seattle, WA
Paul See, Bainbridge Island HS, Bainbridge Island, WA
- 1988 University of Tennessee - Knoxville, TN
Grace Mutz & Mary Emma Bunch, Farragut HS, Knoxville, TN
- 1989 Hyatt Regency-Westshore - Tampa, FL
Thomas Morris, Berkeley Preparatory School, Tampa, FL
David Steele, Plant City HS, Plant City, FL
Ron Carrell, King HS, Tampa, FL
- 1990 Northern Illinois University - DeKalb, IL
Pat Bowler-Johnson, New Trier HS, Winnetka, IL
Richard Rhoad, New Trier HS, Winnetka, IL
Ron Vavrinek, Illinois Math/Science Academy, Aurora, IL
- 1991 Huntsville Hilton - Huntsville, AL
Randy Long & Dorothy Wendt, Grissom HS, Huntsville, AL
Gwenda Snoddy, Austin HS, Decatur, AL
Kay Tipton, Vestavia Hills HS, Vestavia, AL
- 1992 Princeton University - Princeton, NJ
Thomas Morris, Berkeley Preparatory School, Tampa, FL
- 1993 Brigham Young University - Laie, HI
Jeanne Nelson, The Kamehameha Schools, Honolulu, HI
David Furuto, Brigham Young University, Laie, HI
- 1994 The Clarion Hotel - New Orleans, LA
Gary Blackburn, Brother Martin HS, New Orleans, LA

- 1995 Sugarloaf Resort - Western Maine
Lee T. Pedersen, Vinalhaven HS, Vinalhaven, ME
- 1996 University of Central Florida - Orlando, FL
Frank Caballero, Miami Sunset SR HS, Miami, FL
Robert Lundblad, Miami Killian SR HS, Miami, FL
A. Samuel Koski, Miami Springs SR HS, Miami, FL
- 1997 University of Washington - Seattle, WA
Thomas Norris, Thomas Jefferson HS, Auburn, WA
- 1998 Holiday Inn O'Hare - Chicago, IL
James Aiu, Lincoln-Way HS, New Lenox, IL
Pat Bowler-Johnson, New Trier HS, Winnetka, IL
Ron Vavrinek, IMSA, Aurora, IL
- 1999 Park Vista Hotel - Gatlinburg, TN
Mary Emma Bunch & Grace Mutz, Farragut HS, Knoxville, TN
Mary Rhein, Lakota West HS, West Chester, OH
- 2000 San Diego State University - San Diego, CA
Thomas Morris, Berkeley Preparatory School, Tampa, FL
David Steele, Plant City HS, Plant City, FL
- 2001 Renaissance Hotel - Denver, CO
Tom Norris, Thomas Jefferson HS, Auburn, WA
Tom Kamerling, Ponderosa HS, CO
- 2002 Mississippi State University - Starkville, MS
Claudia Carter, MS School for Math & Science, Columbus, MS
- 2003 Emory Conference Center Hotel - Atlanta, GA
Thom Morris, Berkeley Preparatory School, Tampa, FL
A. Samuel Koski, Miami Springs HS, Miami, FL
Susan Hiller, Vero Beach HS, Vero Beach, FL
- 2004 Hilton Hotel and Von Braun Center - Huntsville, AL
Beth Andrada & Cindy Rodgers, Grissom HS, Huntsville, AL
Mary Rhein, Lakota West HS, West Chester, OH
Allen MacKenzie, Virginia Tech, VA

- 2005 Ala Moana Hotel - Honolulu, HI
Calvin Fukuhara, Kimlynne Slagel, Elizabeth Molke, &
Lawrence Park, Kamehameha Schools, Honolulu, HI
- 2006 Ft. Collins Hilton Hotel - Ft. Collins, CO
Thom Morris, Berkeley Preparatory School, Tampa, FL
Sue Doker, Lincoln HS, Tallahassee, FL
- 2007 Grand Hyatt Tampa Bay Hotel - Tampa, FL
Christine Brzycki & Dave Macfarlane, Palm Harbor University
HS, Palm Harbor, FL
- 2008 Holiday Inn Sacramento Capitol Plaza - Sacramento, CA
Thom Morris, Berkeley Preparatory School, Tampa, FL
- 2009 Knoxville Convention Center - Knoxville, TN
Mary Emma Bunch & Grace Mutz, (retired) Farragut HS,
Knoxville, TN
Betty Hood, Brentwood HS, Brentwood, TN
Cyndy Howes, Ravenwood HS, Brentwood, TN
- 2010 Hilton Alexandria Mark Center - Washington, D.C.
Susan Hiller (retired) & Brandi Williams, Vero Beach HS, Vero
Beach, FL
Kim Woolfenden, Middleton HS, Tampa, FL
- 2011 The Embassy Suites Dallas-Frisco - Dallas, TX
Todd Taylor, Vestavia Hills HS, Vestavia Hills, AL
Bonnie Campbell, Hoover HS, Hoover, AL
Thom Morris, Berkeley Preparatory School, Tampa, FL
- 2012 Boston Park Plaza Hotel – Boston, MA
Susan Doker, Lincoln HS, Tallahassee, FL
Thom Morris, Berkeley Preparatory School, Tampa, FL
- 2013 Town and Country Resort – San Diego, CA
Tom Tosch, Mount Rainier HS, Des Moines, WA
Tom Norris, Thomas Jefferson HS, Auburn, WA
- 2014 Doubletree by Hilton at Universal Orlando – Orlando, FL
Rob Snow, Deerfield Beach HS, Deerfield Beach, FL
Lisa Herron, Cypress Bay HS, Weston, FL

The Governing Council is always open to invitations from chapters to host the national convention. If your chapter is interested, you should check with a neighboring college or university concerning availability of dormitory space and lecture halls. Local hotels are also an excellent venue for a convention. It is crucial to have the support of the mathematics department, if the convention is to be held on a college campus. There is a great deal of work involved for the sponsoring chapter or chapters, but past host chapters have indicated that they enjoyed and benefited from the experience.

While it is helpful to have the school host in their home city or near-by, some schools prefer to host in an interesting city outside of their home state. Any school wishing to host a convention should consult the current *Convention Guidelines* available online under National Convention > Host a Convention. Hosting sponsors receive an honorarium for their services. Mu Alpha Theta provides funding for a convention planner, test coordinator, and a scoring room committee to help with arrangements. Sponsors willing to host or help host a convention should contact the National Office to discuss their interest

Mu Alpha Theta and the Mu Alpha Theta Educational Foundation underwrites some expenses for the summer convention.

XI. THE MU ALPHA THETA EDUCATIONAL FOUNDATION

In 1996, Mu Alpha Theta established the Mu Alpha Theta Educational Foundation to support the educational activities of Mu Alpha Theta. Over the years, this 501 (c) (3) non profit organization has accepted both monetary and product donations to reduce the cost of the national convention and to award as prizes, scholarships, and grants to deserving mathematics students, Mu Alpha Theta sponsors, and chapters.

The Educational Foundation is directed by the Governing Council of Mu Alpha Theta. Donations are tax deductible and will be accepted in any amount. The Foundation solicits contributions from supporters of Mu Alpha Theta during the year.

The Educational Foundation supports the following special awards: the Kalin Award, the Andree Awards, the Huneke Award, the Sister Scholastica Award, and the Rubin Award. Each year the Foundation also provides Mu Alpha Theta Scholarships and funds a number of Convention Grants to allow new chapters to attend the national convention. Each grant includes funds for three students and a teacher to attend for free, with extra funds available for reimbursed transportation costs.

From 2003 through 2005, the Foundation also supported the Vector Scholarship program dispersing \$12,000 in college funds to winners in the competition.

In 2005, the Foundation took over administration of the National Convention, supported by both monetary and product donations from Mu Alpha Theta members and friends. Over the years supporters have included Maplesoft Corporation, Wolfram Research, INC, Texas Instruments, Key Curriculum Publishing, Princeton University Press, the Microsoft Corporation, AMRL, the Actuarial Foundation, Raytheon, SIAM, MAA, Jump Trading, and many others. Many individuals have already made generous donations to the Foundation.

The Foundation provides an honor cord or tassel to a member making a small donation. These may be worn by members at graduation in recognition of their outstanding achievements in mathematics. Tassels are also available as a memento to any member for this small donation.

In 2007, the Mary Rhein Memorial Scholarship was first presented. This \$5000 award remembers the dedication of Mary Rhein, who not only served as a sponsor to Lakota West High School, but also as both NCTM representative to our Governing Council and as a regional governor of Region IV until her death in 2005.

In 2013, the Sallie Scudder Memorial Scholarship was created. This \$5000 scholarship is in honor of Sallie Scudder, a math teacher at Berkeley Preparatory School and later at H. B. Plant High School. Sallie was passionate about making a difference in the lives of her students and had a positive influence on everyone around her. The scholarship is supported by donations from the Berkeley Math Club of 2000–2001.

Also in 2013, the Andree Award was changed to include the opportunity for recipients to receive an additional \$1500 to supply their classroom with materials or for professional development when they begin teaching mathematics or a related discipline. Additionally, \$4000 scholarships specifically for two-year college students were created.

XII. AWARDS, SCHOLARSHIPS, & GRANTS

Applications for all awards and scholarships can be found online at www.mualphatheta.org > Awards or > Scholarships. (See appendix B for past winners.)

AWARDS

KALIN AWARD (for students)

This award was established in 1981 through a grant from Dr. Robert Kalin of Florida State University and former president of MA Θ . Dr. Kalin was a nationally recognized mathematics educator and was one of Mu Alpha Theta's strongest supporters.

To be eligible for the award, a student must be representative of all student members by showing unusual capability in mathematics and/or providing unusual service to MA Θ . The student must be graduating from high school and planning to begin college studies in the year in which the award is made. Each chapter is allowed to nominate one Mu Alpha Theta member for the award. While the amount of the award may vary, in recent years the student has been awarded a cash prize of \$2500. The winner may choose to receive the \$2500 as college scholarship money in lieu of cash.

Specifications:

1. The nominee must be a student who is representative of all student members in that he/she has unusual capability in mathematics and renders unusual service to Mu Alpha Theta.
 - a) **Must** be a graduating high school senior in the year of the award.
 - b) **Must** be planning to attend college the next fall.
2. The nomination must be accompanied by the application form for the Kalin Award. *(If the nominee is also being nominated for a Mu Alpha Theta Scholarship, this application need not be filled out. Rather, the sponsor should check the box on the scholarship application form and submit a few paragraphs describing why the student also deserves the Kalin Award along with their scholarship recommendation letter.)*
3. The postmark deadline for all materials is *March 1* of the year in which the award is to be presented.

ANDREE MATHEMATICS EDUCATION AWARDS (for students)

This award recognizes Richard V. Andree and Josephine Andree, founders of Mu Alpha Theta and presents a cash award \$2500 to the winners. In 2007, the Governing Council decided to present two awards, one to a graduating senior and one to a college student. The student must either be or have been a member of a Mu Alpha Theta chapter. Each chapter may submit one nomination in each category. The

award recognizes outstanding students who wish to teach mathematics. The winner may choose to receive the \$2500 as college scholarship money in lieu of cash. Full applications can be found online.

Andree Award recipients have the opportunity to receive an additional \$1500 to supply their classroom with materials or for professional development when they begin teaching mathematics or a related discipline. Recipients will need to fill out an application for the funding which will include verification of employment in the field listed. This application can be found on the Mu Alpha Theta website.

Specifications:

1. The nominee may be an active Mu Alpha Theta graduating senior or a former or current Mu Alpha Theta college member who is planning to teach mathematics after graduating from college.
2. The nomination should be accompanied by the following:
 - a) Biographical information about the nominee.
 - (1) Name, address, (school and home) phone
 - (2) Name of high school or two-year chapter and sponsor
 - (3) College attending or planning to attend
 - (4) Planned or current college major/minor
 - (5) Extra-curricular activities
 - b) Essay by nominee entitled “ Why I Want to be a Mathematics Teacher”
 - c) Exactly three recommendation letters, one from the nominee’s Mu Alpha Theta chapter sponsor and the other two by individuals of the nominee’s choice (no relatives please). These must verify the nominee’s interest in teaching mathematics. Do not submit more than three recommendation letters.
 - d) Transcript of grades through the first semester of the year applying. If the nominee is a current college student, a transcript of collegiate grades should be submitted in addition to high school records.
3. The above items must be submitted to the National Office with postmark no later than *March 1* of the year in which the nominee is to be considered.
4. The decision will be made by the Governing Council.
5. The winner will be notified no later than *March 15*.
6. The name of the winner will be announced at the annual convention.

HUNEKE DISTINGUISHED SPONSOR AWARD

This award was established in honor of Harold Huneke, former Secretary-Treasurer of Mu Alpha Theta and was established by the Governing Council in 1986. The award is intended to honor a current or retired sponsor who has labored tirelessly and made significant contributions to Mu Alpha Theta. In 2007, the Governing Council changed the award and it now carries with it a \$2000 cash award to the teacher and

a \$1000 grant to the teacher's chapter of Mu Alpha Theta. After 2008, **the winner did not need to be present at the national convention to accept the award**, but no teacher may win the award more than once. If a sponsor does not win the award, their name will be added to those nominated for the following two years. In January 2012, the Governing Council voted to make this a **peer-nominated award**.

Specifications:

1. The nominee must satisfy the following criteria:
 - a) Must be a current or former Mu Alpha Theta sponsor.
 - b) Must have served as a sponsor for a minimum of 5 years.
 - c) Must have attended (or will be attending) two annual conventions.
 - d) Must *not* be a current member of the Governing Council.
2. The nomination should be accompanied by three letters of recommendation. One letter will be from the person nominating. The other two may be from a former or current Mu Alpha Theta student (only one permitted); school colleague or administrator; a Mu Alpha Theta sponsor from another school; or other peers of the nominee. All letters must be signed.
3. The nomination and accompanying letters must be submitted to the National Office with postmark no later than *June 15* of the year in which the award is to be made.
4. The winner will be selected by the Governing Council.
5. The winner will be announced and the award presented at the annual convention. The winner need not be present to win.

SISTER SCHOLASTICA MOST COMMITTED SPONSOR AWARD

This award was created at the 24th annual Mu Alpha Theta convention in New Orleans, LA in August of 1994 and was the idea of the Student Delegate Assembly who wanted to create another award to honor sponsors of Mu Alpha Theta. The award currently carries a cash amount of \$2000 to the winning teacher and a \$1000 grant to the teacher's chapter.

Specifications:

1. The sponsor must be in attendance at the national convention in year nominated and any teacher may only win the award once.
2. The nominee must have three letters of recommendation sent to the National Office, including one from the nominating person.
 - a) Other possible sources could include current or past students, co-workers, or Mu Alpha Theta colleagues. All letters must be signed.
 - b) Topics to consider: (for students) sponsor's influence on your participation in Mu Alpha Theta; (for colleagues) sponsor's accomplishments and service to Mu Alpha Theta

3. Nominations are to be sent to the National Office by *June 15* of the year in which the award is to be made. If there are more than 3 nominations, nominees will be narrowed down to 3 by the four student officers at the national convention. The three nominating students will be notified and asked to give a 5 to 10 minute talk to the student delegates on behalf of their nominee. A vote will be held to choose one sponsor after discussion among the delegates.

RUBIN AWARD (for chapters)

The Diane Rubin Award was established in 2004 by the Governing Council of Mu Alpha Theta to be presented annually. The award was named in honor of Diane Rubin, who worked tirelessly at the National Office of Mu Alpha Theta for twenty years, before her retirement in December 2003.

The award will be presented to the Mu Alpha Theta chapter which has a history of outstanding mathematics service to its community for at least two years. This service must promote interest in mathematics. Benefit from this project must be to a group other than its own chapter members.

The winning chapter will receive a prize of \$500 and a distinguished plaque, to be presented at the national convention, but a representative of the chapter need not be present to win. However, to encourage the chapter to attend, the school will also be presented a Convention Grant. A school may win the award only once in a five year period.

Specifications:

1. A representative from the chapter must complete the application form printed from the website.
2. The chapter should submit a maximum three page description of the mathematics service project, single-sided, double-spaced. The three pages may include pictures, news articles, or other printed visual description.
3. Send two supporting letters from someone on the receiving end of the project.
4. The nomination and accompanying letters must be submitted to the National Office with a postmark no later than *March 1* of the year in which the award is to be made.

The Governing Council will select the winning chapter, who will be notified no later than March 30.

MU ALPHA THETA SCHOLARSHIPS

Beginning in 2007, Mu Alpha Theta and the Educational Foundation began awarding \$4000 scholarships to outstanding Mu Alpha Theta graduating high school members. Two additional \$5000 scholarships are also awarded: the Mary Rhein Memorial

Scholarship and the Sallie Scudder Memorial Scholarship. As of 2013, over \$160,000 in scholarship money was made available. Scholarship applications are due *March 1st* of each year.

In 2013, a separate application for two-year college students was created.

Sponsors should check the Mu Alpha Theta website often for information on other outside scholarship opportunities.

NEED-BASED STUDENT CONVENTION SCHOLARSHIPS

Beginning in 2012, Mu Alpha Theta began offering Need-Based Convention Scholarships. Each chapter attending the National Convention may nominate a student for this scholarship. The scholarship pays for the student's registration fee and reimburses up to \$250 in transportation costs. The application is available online and is due before May 15.

GRANTS

SUMMER GRANTS

Mu Alpha Theta will provide up to \$2000 to selected students to pay tuition or fees for a summer math program at, or sponsored by, an accredited school or university. Money for these grants may also be used to reimburse expenses for doing research in mathematics or applied mathematics. A member may apply more than once, but will be awarded no more than \$4000 in total. Students should email the National Office to determine if funding is available after they are approved for the program they wish to attend. For examples of summer programs, see www.mualphatheta.org > Grants > Summer Grants.

To be considered for the grant, the member's chapter must have been active during the previous twelve months. (This means that the school would not have reactivated or chartered in the twelve months prior to the application.) In addition, the student must have been a member since, at least, the semester prior to the application.

CHAPTER GRANTS

Since 2011, Mu Alpha Theta has set aside funding for Chapter Grants. Grant money, up to \$1000 per chapter, may be used to support events that stimulate an interest in mathematics. Money has been granted to provide an honorarium for a guest speaker, to organize applied math or Pi day activities, to provide transportation for visits to a university or applied mathematics facility, to organize math workshops, or host a

mathematics competition.

CONVENTION GRANTS

The Mu Alpha Theta Educational Foundation provides a number of convention grants each year to encourage new chapters to attend the National Convention. These grants typically cover all registration costs for three students and a chapter sponsor to attend the convention, including some transportation support. Applications for the grant can be found at www.mualphatheta.org > National Convention > Attend Free.

To be eligible for a grant, a chapter may not have attended a National Convention in the past. Applications are generally due in April.

XIII. NATIONAL CONSTITUTION

(As amended January, 1986, July, 1994, April 1998, April 2002, October 2003, April 2004, October 2009, April 2011, November 2012)

Article I--Purpose

Mu Alpha Theta, which is sponsored by professional mathematics organizations, including the Mathematical Association of America, the National Council of Teachers of Mathematics, the Society for Industrial and Applied Mathematics, and the American Mathematical Association of Two-Year Colleges, is a non-secret organization whose purpose is the promotion of scholarship in, and enjoyment and understanding of, mathematics among high school and two-year college students.

Article II--Name

The name of the organization shall be Mu Alpha Theta, National High School and Two-Year College Mathematics Honor Society. Either of these names may be used as desired. The organization was established in 1957. Each chapter shall be designated by the name of the school, city, and state in which it is located.

Article III--National Organization

SECTION 1. Ultimate authority

The ultimate authority for the affairs of Mu Alpha Theta shall rest with the chapters, each having one vote. However, the chapters may delegate to the Governing Council (see Section 2), committees, and conventions of the organization the authority to deal with questions not specifically delegated to the chapters by this Constitution. Unless otherwise provided for by this Constitution, the following procedure shall be followed in submitting questions to the chapters: Questions may originate either in the Governing Council or in a General Convention. Or, a question may be proposed by any chapter of the organization by referring it to the Governing Council. The Council may then make a recommendation to be voted on by all chapters. Recommendations shall be deemed approved unless a majority of the chapters voting decide against it and inform the Secretary-Treasurer of their disapproval within two months of the date of submission, not including summer months.

SECTION 2. The Governing Council

The **Governing Council** of Mu Alpha Theta shall exercise all those functions usually assigned to an executive committee and shall have the power to decide all questions

concerning the organization as a whole, which are not otherwise addressed by this constitution or by vote of the chapters. The Council will meet at least twice a year. The Governing Council shall include: a President, a President-Elect or Past-President, a Secretary-Treasurer, four Regional Governors, and a representative from each of the sponsoring organizations.

Governors and officers shall serve without remuneration.

SECTION 3. **Election of Officers**

The Regional Governors and the Secretary-Treasurer shall each serve for a term of four years, with two Regional Governors elected every two years. A president-elect will be elected every two years and will serve one year as president-elect, two years as President, and one year as Past President. The term of each officer shall begin at the conclusion of the annual meeting of the year or September 1 of that year, whichever is earlier. A nominating committee, of at least two persons, shall be appointed by the President no later than October 1 of the year before elections are held. Each sponsoring organization shall be invited to appoint one Council member. If any organization should fail to appoint such a member, then the nominating committee will prepare a slate of nominees, which will include the names of at least two members of said organization. The nominating committee shall nominate at least two qualified candidates suitable for the office of the president-elect and for the offices of Regional Governor, and at least one for the office of Secretary-Treasurer. Should the nominating committee be unable to find two willing candidates for any position, after contacting all chapters for qualified volunteers; a single candidate may stand for election. The Governing Council, a General Convention, or any chapter may make additional nominations at any time before the ballots are prepared. Nominations are subject to the following restrictions:

Nominations are subject to the following restrictions:

- (1) No one shall serve more than one term as President.
- (2) No limit shall be placed on the number of terms of the Secretary-Treasurer.
- (3) No elected council member, other than the Secretary-Treasurer, may serve more than eight consecutive years.
- (4) A sponsoring organization shall determine the term of its representative.
- (5) Two Council members shall not be elected from the same institution.

Region1: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Illinois, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, Wyoming, Canada, the Far East, the Pacific Islands, and Western Europe.

Region 2: Arkansas, Louisiana, Oklahoma, Texas, South America and Middle East.

Region 3: Alabama, Connecticut, Indiana, Kentucky, Maine, Massachusetts, Michigan, Mississippi, New Hampshire, New Jersey, New York, Ohio, Rhode Island, Tennessee, Vermont, West Virginia, and Eastern Europe.

Region 4: Delaware, Florida, Georgia, Maryland, North Carolina, Pennsylvania, South Carolina, Virginia, District of Columbia, the Caribbean, Puerto Rico, and Africa.

Only chapters in a region shall vote on the candidates for Regional Governor of that region. All chapters shall vote on the candidates for president-elect and secretary-treasurer. Ballots shall be submitted to chapters by March 15 and shall contain the nominees for Regional Governor of the appropriate region and also the nominees for president-elect and secretary-treasurer. Each chapter shall indicate only one choice on the ballot for each of the officers to be elected. Ballots to be counted must be postmarked by April 24. Decisions shall be based upon a plurality of chapter votes cast for each office. In case of a tie among two or more candidates for an office, the outgoing Governing Council shall choose between the candidates.

SECTION 4: **Duties of Officers and Regional Governors**

(1) The **President** shall be the chief executive officer of the organization with the following responsibilities:

- a) Promote national Mu Alpha Theta activities.
- b) Approve all new chapters and sign the charters.
- c) Conduct meetings of the Governing Council
- d) Preside at the meeting for sponsors at the National Convention.
- e) Consider ideas and suggestions of sponsors and students.
- f) Meet with Student Delegate Assembly whenever possible and help to organize regional Student Delegate Assemblies.
- g) Appoint a Nominating Committee for the bi-annual elections.
- h) Serve with other members of the Governing Council as member of an appeal body in any case involving disciplinary action.
- i) Participate in the activities of the national convention.
- j) Represent Mu Alpha Theta at meetings and ceremonies of other organizations (e.g. United States Mathematical Olympiad Awards Ceremony).
- k) Appoint representatives to boards and councils on which Mu Alpha Theta is represented.
- l) Make appointments to fill all vacancies that occur among the Regional Governors or officers, with the approval of the Governing Council, for the balance of the

term. However, should the President-Elect be unable to fulfill the term of office, the President shall nominate a candidate to fill the remainder of the term, with approval of the Governing Council. That candidate and the person who received the next most votes in the prior election for the post, should that person agree to run, shall be placed in a special election of the chapters to be concluded within one month of the resignation of the President-Elect. The term for the individual elected in the special election shall be the remainder of the term of the resigning officer. Chapters shall have the opportunity to approve a replacement, even if only one candidate stands for election.

(2) The **Past President or President-Elect** shall perform the duties of the President in case of any temporary or permanent incapacity of the latter.

(3) The **Secretary-Treasurer** shall discharge the duties ordinarily pertaining to the offices of secretary and treasurer. He (or she) shall keep an accurate record of all proceedings of the Governing Council, and all decisions made by general conventions or by vote of the chapters, and shall have charge of the records and official correspondence of the organization. He (or she) shall also have charge of all moneys or other valuable properties belonging to the organization, and shall keep an accurate record of all financial transactions, said account to be audited as provided by the Council. He (or she) shall make an accounting to the Governing Council at all meetings of the Governing Council. He (or she) shall keep an official record of all members and issue membership certificates.

a) The details of day-to-day business shall be managed by an Executive Director. This person shall serve as a non-voting, Ex-Officio member of the Governing Council and will be hired by the Secretary-Treasurer with approval of the President. There is to be no specific term of office.

(4) Each **Regional Governor** shall:

- a) Promote Mu Alpha Theta activity within his(her) region.
- b) Vote throughout the year on approval of new chapters in his or her region.
- c) Attend all meetings of the Governing Council and report annually, at the winter meeting, Mu Alpha Theta activities in their region during the past year.
- d) Consider ideas and suggestions of sponsors and students.
- e) Meet with the Student Delegate Assembly when able and help to organize the regional Student Delegate Assembly.
- f) Serve on committees of the Governing Council.
- g) Serve with other members of the Governing Council as member of an appeal body in any case involving disciplinary action.
- h) Be a leader in suggesting ways in which Mu Alpha Theta can improve and

expand.

(5) Each **representative** of the sponsoring organizations shall

- a) Serve as a liaison between Mu Alpha Theta and their organization.
- b) Attend all meetings of the Governing Council and report on these to their sponsoring organization.
- c) Make an annual report to the Governing Council at the summer council meeting, describing interactions during the prior year between Mu Alpha Theta and the sponsoring organization, if any.
- d) Serve on committees of the Governing Council.
- e) Be a leader in suggesting ways in which Mu Alpha Theta and the sponsoring organization can best work together to further the mission of Mu Alpha Theta and better serve its chapters and their members.

SECTION 5: **Conventions**

Mu Alpha Theta may hold regional or national conventions at such times as it may choose to do so. Such conventions may propose legislation to be submitted to the chapters for final vote, in which case the procedure shall be the same as specified in Section 1 of this Article. At such conventions officers may also be nominated and proposals made to be referred to the Governing Council.

SECTION 6: **Certificates of Membership**

Certificates of Membership shall be issued by the Secretary-Treasurer on certification from the faculty-sponsor of the chapter.

SECTION 7: **Fees and Dues**

There shall be **no** national annual dues. An initiation fee per member shall be paid to the Secretary-Treasurer for each person initiated into membership, whereupon the Secretary-Treasurer shall issue a membership certificate to that member and place his name on the official roll.

Article IV-- **Chapters**

SECTION 1: **Qualifications for Chapters**

Any high school or two-year college, with accreditation from a recognized accrediting agency and offering courses in mathematics, may petition to have a chapter, providing it meets the following minimum requirements:

(1) High schools must offer at least two years of algebra and one year of geometry, or their equivalent, and a minimum of one year of more advanced mathematics. These requirements cannot be fulfilled by courses in general mathematics, general business mathematics, or arithmetic. Two-year colleges must offer at least three courses beyond pre-calculus, which include calculus, differential equations, linear algebra, or statistics.

(2) The school must employ at least one teacher whose primary teaching field is mathematics and who has completed an undergraduate mathematics major or its equivalent at an accredited college or university. The equivalent of a mathematics major shall be understood to include a minimum of six college mathematics courses at the calculus level or above.

(3) The Principal, or other chief administrative officer of the institution, must approve the petition.

(4) An initial charter fee, along with the regular initiation fee for each member, shall be paid to the office of the Secretary-Treasurer before a charter is granted. If a check accompanies the petition, it will be held until the institution is granted a charter, at which time it will be cashed. If the charter is denied, the check will be returned to the petitioning school with an explanation of why the charter was denied.

(5) High School chapters shall be admitted for membership on the approval of the President and the Governor of the appropriate region. Two-Year College chapters shall be admitted for membership on the approval of the President and the AMATYC Representative. Should either deny a petition for membership, the school may appeal the decision to the Governing Council for consideration. A two-thirds vote of the Governing Council shall be required to approve such a chapter for membership.

SECTION 2: Inactive Chapters and Forfeiture of Charter

(1) If a chapter makes no report of new members for one year, at the end of that school year, the National Office shall inquire by letter if it is still an active chapter. If no members are added the following school year, for a total of two consecutive years without members, the chapter shall be considered inactive. The school will be notified that the chapter has been made inactive and asked to remove the name Mu Alpha Theta from its math club. A chapter may reactivate at any time, simply by sending the initiation fees for its members and paying a reactivation fee.

(2) If an inactive chapter, with members, continues to use the Mu Alpha Theta name; and three months after a warning letter is received, still does not register their

members, their charter will be rescinded. If a charter is forfeited, the school must resubmit a petition and pay for a new charter, should they want to have a chapter at some time in the future. The chapter sponsor and the principal of the school will be notified by registered mail that they are in violation of this constitution and that their charter has been forfeited.

Article V--**Membership**

The following minimum requirements for Members and Associates shall be common to all chapters:

(1) Each chapter shall have a faculty-student committee, which will recommend possible members to the chapter.

(2) Members:

a) High school students in grades 9 through 12, at the school where their permanent record resides, who have completed the equivalent of two years of college preparatory mathematics, including algebra and geometry, and in addition have completed or are enrolled in a still more advanced course, are eligible for membership providing their mathematical work was done with distinction. On the 4-point grading scale, this shall mean at least a 3.0 grade point average.

b) Two-year college students who were members of Mu Alpha Theta in high school are eligible for membership in their college's chapter. Two-year students are also eligible if they have had at least one mathematics course at or above the College Algebra/Precalculus level and at least a 3.0 GPA overall in all Two-year college mathematics courses at or above the College Algebra/Precalculus level.

(3) Associates:

High School students in grades 9 through 12, at the school where their permanent record resides, who have completed one year of algebra, or its equivalent, with distinction and are currently enrolled in a higher math course are eligible to be Associates of Mu Alpha Theta. Associates are not members of Mu Alpha Theta but are likely candidates for membership. Associates do not pay the initiation fee but are eligible to be listed with the National Office, should they wish to participate in Mu Alpha Theta national math contests. While they are not entitled to vote nor hold office in their chapter, they are entitled to attend and be heard at meetings. A student may remain an Associate for only one year and then, if eligible, must be inducted as a Member of Mu Alpha Theta

(4) No student shall be recommended for consideration that does not meet the minimum qualifications. Individual chapters may impose additional requirements, however, no student will be denied membership on account of race, religion, color, creed, ethnicity,

national origin, gender, sexual preference, and/or physical disability.

(5) No student may list membership in Mu Alpha Theta on a resume until their name has been submitted to the Secretary-Treasurer for inclusion in our official records. Chapters are responsible to notify the Secretary-Treasurer within one month of a student's initiation.

(6) A student may only compete in Mu Alpha Theta competitions with a team from the school where they are currently listed as a member and where their permanent records reside.

Article VI--Chapter Organization

Each chapter is free to set up its own organization, officers, and finances with the following restrictions:

(1) Each chapter must have a semi-permanent faculty sponsor and the national organization (Secretary-Treasurer) must be kept informed of the current faculty sponsor's name and address.

(2) The minimum membership requirements set forth by the national organization must be met by all initiates.

(3) A complete and accurate list of all member initiates, accompanied by their initiation fees, must be received by the office of the Secretary-Treasurer no longer than one month after new members have been initiated. Failure to register students can lead to forfeiture of the chapter's charter.

(4) Each chapter must hold regular meetings at periodic intervals and not merely consider itself an honor society for high grades. At a minimum, there should be one meeting every month.

(5) Meetings must be open to all interested persons.

Article VII--The Constitution

A two-thirds majority of the chapters voting shall be required to change this constitution.

XIV. STUDENT DELEGATE ASSEMBLY BY-LAWS

Amended 2007

We the delegates of Mu Alpha Theta, in order to create a forum for the exchange of ideas and recommendations, do hereby ordain and establish these bylaws for the National Student Delegate Assembly of Mu Alpha Theta.

ARTICLE I

Delegates

Delegates shall be members in good standing, present at the National Convention, and chosen by their local chapter. A chapter shall have one delegate but, if space permits, other members may attend the Assembly meetings. Each chapter shall have one and only one vote cast by the delegate.

ARTICLE II

Delegate Officers

Section 1. There shall be four delegate Officers, one from each of the four regions, who shall also serve as President, Vice-President, Secretary, and Parliamentarian. They will also serve as Regional Representatives.

Section 2. The duty of the Officers as Regional Representatives shall be to promote Mu Alpha Theta within their region with their Governor and to work on long-term goals as designated by the Assembly. A Regional Representative must attend the national convention during his/her elected term and be a member in good standing at that time.

Section 3. Concerning the individual Officer duties:

- (a)The duty of the President shall be to preside over the meetings of the Assembly, to coordinate the activities of the Officers and to act as spokesperson to the Governing Council.
- (b)The duty of the Vice President shall be to assume the duties of the President when the President is absent.
- (c)The duty of the Secretary shall be to maintain minutes, agendas, and a record of delegates, Officers, and committees, and to make them available to the delegates and to the Executive Director of Mu Alpha Theta.
- (d)The duty of the Parliamentarian shall be to advise the President, Officers, committees, and delegates on matters of parliamentary procedure.

Section 4. Concerning the Officer duties at the National Convention:

- (a)The President shall, prior to the convention, communicate by letter or email to the delegates a generic agenda (e.g. introductions, separation into regions to discuss proposed resolutions, plenary session discussion of and vote on resolutions, and

election of Officers) and recommend that any student desiring to run for office prepare remarks concerning his/her qualifications.

(b)The Officers shall meet, at the convention, with the President of the National Mu Alpha Theta and the four Regional Governors prior to the first meeting of the Student Assembly.

(c)The Officers shall greet convention speakers as they arrive and introduce them at the speaker sessions.

(d)The Officers shall contact convention hosts and offer to unpack and set up the trophies.

(e)The Officers shall assist with the award ceremonies and present the trophies to the winners.

(f)The Officers shall prepare paper to use as ballots for the Student Officer elections.

(g)The Officers shall write “Thank you” letters to all hosts, speakers, and vendor donors at the most recent convention.

(h)The Officers shall write letters to business vendors asking for donations for the next convention and write “Thank you” letters when items are received.

(i)The Officers shall receive copies of the Sister Scholastica award nomination papers and arrange student presentations by schools nominating their sponsor for the award. The President of the Assembly will be responsible for counting ballots and alerting the National President of Mu Alpha Theta of the winner as soon as the winner is determined.

Section 5. Each of the four regions respectively shall elect one of their chapters’ delegates as their Regional Representative, during the first meeting of the Assembly. They will be elected by paper ballot, with one vote per chapter, cast only by the chapter delegate. The delegate of each chapter, if entering either 11th or 12th grade, is eligible for election as Regional Representative, unless their chapter provided an Officer in the past year, or if it provided an Officer in the past three years and is also in a region with five or more chapters present in the Assembly. In order to run for election, this must be at least the second national convention the delegate has attended as a member or associate of Mu Alpha Theta. In the event that no delegate from the region is eligible for regional representative, delegates attending their first convention are eligible to run for regional representative if they have met the other qualifications. Written permission from his/her sponsor to run for Regional Representative MUST be presented to the student delegate President by any delegate wishing to be elected.

Section 6. Officers for the next school year shall be elected at the second meeting of the Assembly. Each chapter, after speeches and questions from the Assembly, shall vote for one of the four newly chosen Regional Representatives. The election shall be by paper ballot with one vote per chapter, cast only by the chapter delegate. There shall be no run-offs in any election; a vote shall be repeated until the necessary

majority is raised.

The President shall be elected by the greatest number of votes cast, the Vice President by the second greatest number of votes, the Secretary by the third and the Parliamentarian by the fourth. The newly elected Officers and their sponsors shall meet with the National President, Governors, and past student officers before the end of the convention.

Section 7. Newly elected Officers shall hold office for a term lasting from the conclusion of the National Convention, at which they were elected, to the conclusion of the following Convention.

ARTICLE III

Meetings

Section 1. Meetings of the Assembly shall be held only during the National Convention and shall be held as often as possible. There shall be at least two mandatory meetings. Meeting times will be listed in the convention schedule, prior to the start of the convention, and a designated room will be prearranged by the Convention Hosts.

Section 2. Order of Business

- (a) Presentation of minutes
- (b) Reports of Officers
- (c) Reports of special committees
- (d) Old Business
- (e) New Business

Section 3. Speeches shall not exceed five minutes on any one topic by any one speaker.

Section 4. General consent, “If there are no objections...”, voice vote, show of hands, and ballot voting may be used to raise a majority. Two-thirds majorities shall be determined by paper ballot, one per chapter. A majority vote shall pass recommendations on to the Governing Council.

Section 5. A quorum shall consist of a simple majority of delegates from chapters attending the National Convention with at least three chapters from each region.

ARTICLE IV

Committees

The Officers shall recommend to the Assembly, prospective committees and their duties. The Assembly shall appoint committees with at least one delegate from each region. Committees shall choose their own chair. The Officers may dissolve

a committee determined to be ineffective, but only if it has been inactive for four consecutive months. A majority vote of delegates may overturn such dissolution. Past committees included: Contact Committee, Recruitment Committee, Spirit Committee, and Sponsorship Committee.

ARTICLE V

Parliamentary Authority

The rules contained in the current edition of Robert's Rules of Order Newly Revised shall govern the Assembly in all cases to which they are applicable and in which they are not inconsistent with the Mu Alpha Theta National Constitution, these bylaws, or any Rules of Order the Assembly may adopt. The Presiding Officer may address the Assembly without a high degree of formality.

ARTICLE VI

Amendment

These bylaws may be amended, after approval by the Governing Council, at any meeting of the Assembly by a two-thirds vote. The Rules of Order may be amended by a majority. These bylaws shall not violate any stipulation of the Mu Alpha Theta National Constitution.

APPENDIX A - PRESIDENTS OF MU ALPHA THETA

| | |
|-----------|----------------------|
| 1957-1959 | Henry Alder |
| 1959-1962 | J. C. Eaves |
| 1962-1966 | LeRoy Dalton |
| 1966-1969 | Frank Allen |
| 1969-1971 | Robert Wilson |
| 1971-1973 | Julius Hlavarty |
| 1973-1975 | William McNabb |
| 1975-1977 | Sarah Herriot |
| 1977-1979 | Robert Kalin |
| 1979-1981 | Katherine Layton |
| 1981-1983 | Eugene Smith |
| 1983-1985 | Adele Hanson |
| 1985-1987 | Betty Lichtenberg |
| 1987-1989 | Pamela Drummond |
| 1989-1991 | John Kenelly |
| 1991-1993 | Carol McGill |
| 1993-1995 | Joyce Becker |
| 1995-1997 | Barbara Stott |
| 1997-1999 | John A. Dossey |
| 1999-2001 | Claudia R. Carter |
| 2001-2003 | Harold B. Reiter |
| 2003-2005 | Susan Hiller |
| 2005-2007 | Mary Emma Bunch |
| 2007-2009 | Grace Mutz |
| 2009-2011 | Tom Tosch |
| 2011-2013 | Elizabeth C. Botzner |
| 2013-2015 | Todd Taylor |

APPENDIX B - AWARD WINNERS

KALIN AWARD WINNERS

- 1981 Edward Rimland
Miami Coral Park SR HS, Miami, FL
- 1982 Kristi Sether
Wauwatosa West HS, Wauwatosa, WI
- 1983 Roger Kirpes
Wahlert HS, Dubuque, IA
- 1984 Ly Phan
W. B. Travis HS, Austin, TX
- 1985 Christopher Neils
Bainbridge Island HS, Bainbridge Island, WA
- 1986 Anita Scott
Central HS, Tuscaloosa, AL
- 1987 Beesham A. Seecharan
Miami Sunset SR HS, Miami, FL
- 1988 Rajit Jain
Farragut HS, Knoxville, TN
- 1989 Joseph Del Toro
Miami Sunset SR HS, Miami, FL
- 1990 Alexander Hartemink
Fort Myers SR HS, Ft. Myers, FL
- 1991 Stephanie Shaw
Cypress Lake HS, Ft. Myers, FL
- 1992 Loren Looger
Randolph School, Huntsville, AL
- 1993 Rachel Ventura
North Miami Beach SR HS, N. Miami Beach, FL
- 1994 Miriam Goldstein
Berkeley Preparatory School, Tampa, FL
- 1995 Allan MacKenzie
Farragut HS, Knoxville, TN
- 1996 Dharmesh M. Mehta
Marjory Stoneman Douglas HS, Parkland, FL
- 1997 Paul N. Kustos
Hoover HS, Hoover, AL
- 1998 Zubin M. Teja
J. P. Taravella HS, Coral Springs, FL
- 1999 Joshua S. Peters
Lafayette HS, Lafayette, LA

- 2000 Monique Gupta
First Presbyterian Day School, Macon, GA
- 2001 David Smith
Catholic HS, Baton Rouge, LA
- 2002 Mauro Braunstein
J.P. Taravella HS, Coral Springs, FL
- 2003 Edward B. Lee
Baton Rouge Magnet HS, Baton Rouge, LA
- 2004 Nickolas M. VanMeter
Archbishop Rummel HS, Metairie, LA
- 2005 Ross Friedberg
Rickards HS, Tallahassee, FL
- 2006 Benjamin G. Cunningham
Rickards HS, Tallahassee, FL
- 2007 Pratik P. Shah
Lincoln HS, Tallahassee, FL
- 2008 Bryan T. McMeen
Grissom HS, Huntsville, AL
- 2009 Matthew W. Claussin
Hoover HS, Hoover, AL
- 2010 Nitish Aggarwal
Vestavia Hills HS, Vestavia Hills, AL
- 2011 Kyle Julian
Vestavia Hills HS, Vestavia Hills, AL
- 2012 Dae (Daniel) W. Kang
Rickards HS, Tallahassee, FL
- 2013 Steve Han
Buchholz HS, Gainesville, FL

ANDREE AWARD WINNERS

- 1987 Matthew Frueh
Walbert HS, Dubuque, IA
- 1988 Teresa Britt
Northside HS, Fort Smith, AR
- 1989 Tammy Kirkland
East Central Community College, Decatur, MS
- 1990 Kara Finley
Pope HS, Marietta, GA
- 1991 Crystal Dawn Brandon
Plant City HS, Plant City, FL
- 1992 Doris Keith

- MS School for Science & Math, Columbus, MS
- 1993 Claire Fukumoto
Mililani HS, Mililani Town, HI
- 1994 Derinda Tyler
Austin HS, Decatur, AL
- 1995 Rory Gormley
Clarkstown HS North, New City, NY
- 1996 Keith Bernicky
Lincoln-Way HS, New Lenox, IL
- 1997 Jill L. Halter
Columbia Central HS, Columbia, TN
- 1998 Kris Barnett
Lafayette HS, Lafayette, LA
- 1999 Abigail A. Luck
Farragut HS, Knoxville, TN
- 2000 no award given
- 2001 no award given
- 2002 April Tam
Miami Springs HS, Miami, FL
- 2003 Mathew J. Baxter
Ft. Myers HS, Ft. Myers, FL
- 2004 Christopher P. Terndrup
Vestavia Hills HS, Birmingham, AL
- 2005 John Omundsen
Fort Myers HS, Fort Myers, FL
- 2006 Angela Giffin
Mt. Carmel Academy, New Orleans, LA
- 2007 Whitney T. Hall
Claremore HS, Claremore, OK
- 2008 Kerry Krychear
SUNY Plattsburgh, Plattsburgh, NY
- 2009 Melina P. Pierce
Volunteer HS, Church Hill, TN
James J. Doker (Lincoln HS)
University of Florida, Gainesville, FL
- 2010 Stacey V. Luong
Mount Rainier HS, Des Moines, WA
Elizabeth L. Pruitt (Hoover HS)
Vanderbilt University, Nashville, TN
- 2011 Rebekah Rose
Lake Highlands HS, Dallas, TX
Shelby L. Robinson (Cabot HS)

- University of Arkansas, Fayetteville, AR
- 2012 Adam Su
Texas Academy of Math & Science, Denton, TX
Katherine N. Harbula (Midlothian HS)
Virginia Tech, Blacksburg, VA
- 2013 Anna Clapsaddle
Millbrook HS, Raleigh, NC
Lauren Levenhagen (Grissom HS)
Auburn University, Auburn, AL

SISTER SCHOLASTICA AWARD WINNERS

- 1995 Thomas Norris
Thomas Jefferson HS, Auburn, WA
- 1996 No award given
- 1997 Debbie Patonai
St. Vincent-St. Mary HS, Akron, OH
- 1998 Ann Singleton
Marjory Stoneman Douglas HS, Parkland, FL
- 1999 Michael Carpenter
Central HS, Tuscaloosa, AL
- 2000 Suzy Baker
Hoover HS, Hoover, AL
- 2001 Peggy Patout
Catholic HS, Baton Rouge, LA
- 2002 Renee Fish
Palm Harbor University HS, Palm Harbor, FL
- 2003 Darryl Hill
James S. Rickards HS, Tallahassee, FL
- 2004 Mary Rhein
Lakota West HS, West Chester, OH
- 2005 A. Sam Koski
Miami Springs Senior HS, Miami Springs, FL
- 2006 Mattie White
Benjamin Franklin HS, New Orleans, LA
- 2007 Robert M. Snow
Deerfield Beach HS, Deerfield Beach, FL
- 2008 Will Frazer
Buchholz HS, Gainesville, FL
- 2009 Lisa M. Weaver
Miami Springs HS, Miami Springs, FL
- 2010 Kim Woolfenden

- Tampa Bay Technical HS, Tampa, FL
 2011 Ziwei Lu
 Buchholz HS, Gainesville, FL
 2012 No award given
 2013 Trung Vong
 Seminole HS, Sanford, FL

HUNEKE AWARD WINNERS

- 1986 Paul Forester
 Alamo Heights HS, San Antonio, TX
 1987 Adele Hanson
 Milwaukee Tech HS, Milwaukee, WI
 1988 Sister Scholastica
 Blessed Sacrament Academy, San Antonio, TX
 1989 Martha Howell
 Central HS, Tuscaloosa, AL
 1990 Grace Mutz
 Farragut HS, Knoxville, TN
 1991 Dorothy Wendt
 Grissom HS, Huntsville, AL
 1992 Claudia Carter
 MS School for Science & Math, Columbus, MS
 1993 Norman Johnson
 Hanford Secondary School, Richland, WA
 1994 Lee "Pete" Pedersen
 Vinalhaven HS, Vinalhaven, ME
 1995 Helen Dostal
 North Miami Beach SR HS, N Miami Beach, FL
 1996 Thom Morris
 Berkeley Preparatory School, Tampa, FL
 1997 A. Samuel Koski
 Miami Springs HS, Miami Springs, FL
 1998 Mary Emma Bunch
 Farragut HS, Knoxville, TN
 1999 Michael Carpenter
 Central HS, Tuscaloosa, AL
 2000 Dorothy Martin
 Bellevue HS, Bellevue, WA
 2001 Sue Doker
 Lincoln HS, Tallahassee, FL
 2002 Renee Fish
 Palm Harbor University HS, Palm Harbor, FL

- 2003 Donna Sowers
Ft. Myers HS, Ft. Myers, FL
- 2004 Carol Selph
Vero Beach HS, Vero Beach, FL
- 2005 Barbara Stott
Brother Martin HS, New Orleans, LA
- 2006 Thomas Morris
Berkeley Preparatory School, Tampa, FL
- 2007 No Award Given
- 2008 Calvin Fukuhara
Kamehameha School, Honolulu, HI
- 2009 Jenny Negin
Stoneman Douglas HS, Parkland, FL
- 2010 Bonnie Campbell
Hoover HS, Hoover, AL
- 2011 Tom Norris
Thomas Jefferson HS, Auburn, WA
- 2012 Susan Hiller
Vero Beach HS, Vero Beach, FL
- 2013 Kim Woolfenden
Tampa Bay Technical HS, Tampa, FL

RUBIN AWARD WINNERS

- 2005 Miami Springs Senior High School
Miami Springs, FL
- 2006 Vero Beach High School
Vero Beach, FL
- 2007 Illinois Math & Science Academy
Aurora, IL
- 2008 Lakota West High School
West Chester, OH
- 2009 Columbus High School
Columbus, GA
- 2010 East Anchorage High School
Anchorage, AK
- 2011 Thomas Jefferson High School
Auburn, WA
- 2012 Grissom High School
Huntsville, AL
- 2013 Buchholz High School
Gainesville, FL

APPENDIX C - INSIGNIA AND MERCHANDISE

MERCHANDISE

Please note: Prices and availability are subject to change. For the most recent merchandise information, go to www.mualphatheta.org.

| | |
|---|---------|
| Medallion | \$5.00 |
| Pin | \$7.00 |
| Button | \$7.00 |
| Charm | \$6.50 |
| Banner - Blue & Gold Felt (18" x 36") | \$15.00 |
| Patch (4" emblem) | \$ 2.50 |
| Tattoo | \$.25 |
| T-Shirt (S, M, L, XL, XXL) | |
| Ash | \$8.00 |
| Blue | \$10.00 |
| Yellow | \$10.00 |
| Small Seal | \$.10 |
| Black Tote Bag (Insignia w/“Mathematics What Else is There?”) | \$10.00 |
| Honor Cord (Donation to the Educational Foundation) | \$5.00 |
| Tassel (Donation to the Educational Foundation) | \$5.00 |
| Appreciation Certificate | \$3.00 |
| Certificate Reprint | \$3.00 |
| Charter Certificate Reprint | \$3.00 |

All jewelry is fashioned in the Mu Alpha Theta insignia in blue and gold. The charm for bracelets or necklaces, pin, and button (the button is similar to a tie tack with post) have the appearance of 14K gold and have superior wearing qualities with a satin-back finish.

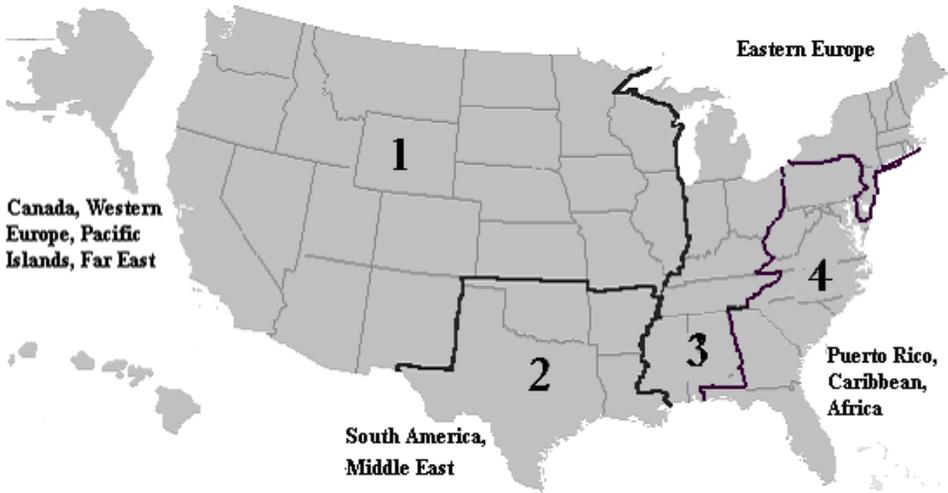
For pictures of the merchandise, go to www.mualphatheta.org > Teacher Resources > Merchandise.

BOOKS

| | |
|----------------------------|--------|
| Mathematics & Music..... | \$6.00 |
| Handbook for Sponsors..... | \$6.00 |

APPENDIX D - REGIONS

Map of Mu Alpha Theta Geographical Regions after 2010:



Region 1: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Illinois, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, Wyoming, Canada, the Far East, the Pacific Islands, and Western Europe.

Region 2: Arkansas, Louisiana, Oklahoma, Texas, South America, Central America, Mexico, and the Middle East.

Region 3: Alabama, Connecticut, Indiana, Kentucky, Maine, Massachusetts, Michigan, Mississippi, New Hampshire, New Jersey, New York, Ohio, Rhode Island, Tennessee, Vermont, West Virginia, and Eastern Europe.

Region 4: Delaware, Florida, Georgia, Maryland, North Carolina, Pennsylvania, South Carolina, Virginia, District of Columbia, the Caribbean, Puerto Rico, and Africa.

APPENDIX E - FORMS

SAMPLE INDUCTION NEWS RELEASE

Possible captions could include the number of new members and the name of the school:

**Mu Alpha Theta Taps (number) (School) Students
(Number) (School) Students Inducted into National Math Honor Society**

(number) students were honored at (school) on (date) by induction into Mu Alpha Theta, the International High School and Two-Year College Mathematics Honor Society. To be eligible for membership, a student must have completed four semesters of college preparatory mathematics and be enrolled in a fifth semester. In addition, the student must maintain at least a B average in these courses.

Mu Alpha Theta was founded in 1957 at the University of Oklahoma and has grown to more than 2000 chapters around the world. It is sponsored by the following professional mathematics organizations: The Mathematical Association of America, The National Council of Teachers of Mathematics, The Society for Industrial and Applied Mathematics, and The American Mathematical Association of Two-Year Colleges. The purpose of the organization is to promote scholarship in, and enjoyment and understanding of, mathematics among high school and two-year college students.

The (school) chapter of Mu Alpha Theta is sponsored by (teacher names). The chapter officers are: (List office and officers)

(Describe chapter activities)

Listed below are students who were honored at the recent induction ceremony:
(List Inductees)

SAMPLE MEMBERSHIP FORM

Application for Membership

Mu Alpha Theta, the National High School and Two-Year College
Mathematics Honor Society

Print your Name the way you want it to appear on your certificate.

Phone _____ Email _____

Year of Graduation _____

Current Extracurricular

Activities: _____

Current Math Class, Teacher, and Current Average: _____

If you are not a senior, math class you will take next year:

List each of your math courses completed from Algebra 1 and up and with the mid-semester and final grade earned: _____

To be eligible for membership you must . . . (List eligibility requirements for your chapter.)

If you are inducted, you will be asked to fulfill the following membership requirements to stay active: (List requirements for a student to remain a member in good standing in your chapter.)

Examples:

- Attend monthly meetings
- Be enrolled in a math class all four years of high school
- Pay \$15 membership fee yearly (waivers available for students who receive Free/Reduced Lunch)
- Actively participate in one or more of the following
 - o Mathletes
 - o Academic Team
 - o Chess Club
 - o Math Competitions
 - o Math Tutoring at school or online
 - o Other Math/Scholastic Activity that has been approved by advisor

Student Signature_____

Date_____

The following math teacher recognizes your excellence in Math and supports your application for induction into Mu Alpha Theta.

Math Teacher Signature_____

Date_____

Please attach a copy your Complete High School Academic History. Make Sure Final Grades are visible.

Due by: (List Date) **Turn into:** (List place and person.) **NO EXCEPTIONS**

If you are accepted for membership, you will be notified by: (list date)

Induction will be held (list date). **You and your parents are invited to attend.**

Refreshments will be served and (note the speaker, topic, or activity occurring at the initiation ceremony.)

We recommend you accept applications for about one week after the final deadline listed. Hold your online order for new members with us until after this hold time. Some schools also ask about why the student wants to be a member of Mu Alpha Theta, if they have a particular interest in mathematics, if they enjoy math competitions, and other information about their coursework outside of math.