

# MU ALPHA THETA NEWSLETTER

## NATIONAL OFFICERS

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## NEWS FROM THE PRESIDENT

I am extremely honored to be serving as your president for the next two years. I have been associated with Mu Alpha Theta since 1980 when I served as a co-sponsor at Bearden High School in Knoxville, TN. Since 2003, I have been the sponsor at Brentwood High School in Brentwood, TN. I served as Region III Governor from 2010-2014 and was a co-host of the 2009 National Convention. I look forward to having the opportunity to work with the many Mu Alpha Theta chapters in the national organization.

Two new members of the Governing Council, this year, include our MAA Representative Mark Saul and coming aboard later this fall our AMATYC Representative Paige Feibelman Perry from Southern Union State Community College in Opelika, AL.

This is an election year for positions on the Mu Alpha Theta Governing Council. Positions to be filled are President-Elect and Governors from Regions I and II. As a sponsor, if you are interested in running for office or know of anyone who has expressed an interest in running, please contact Kay Weiss at the National Office.

A huge thank you goes to Thom Morris from Berkeley Prep in Tampa, FL, Paul Kustos from Hoover High in Hoover, AL, and Theo Diamandis from Stanford University, who planned and ran the 2015 National Convention in Salt Lake City. We enjoyed a week of great weather, amazing scenery, fun excursions, and excellent competitions. Congratulations to Buchholz High School from Gainesville, FL for winning their ninth consecutive Sweepstakes award! Nathan Watson of Berkeley Prep won the prestigious Kalin Award. Outstanding sponsor awards went to Tom Tosch of Mount Rainier High School (Huneke Award) and Elizabeth Funk of Hillsborough High School (Sister Scholastica Award).

Please take some time to peruse the new and improved Mu Alpha Theta website. This site contains a wealth of information that you will find helpful when planning your new school year--information on free contests, chapter activities, scholarships, sponsor and student awards, chapter and convention grants, and National Convention information, just to name a few. You can also log in to your account to find schools in your area that have chapters. Perhaps you can exchange club activity ideas or partner up to host a competition. Please remind senior students of the many scholarships that are available from Mu Alpha Theta and encourage them to apply. If you are looking for some money to participate in a competition or to put on a club activity, Chapter Grants of up to \$1000 and Competition Grants of up to \$500 are available. Ideas for using a Chapter Grant can be found on our website.

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## NEWS FROM THE PRESIDENT CONTINUED...

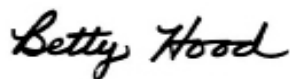
Begin planning now for the 2016 National Convention in Missouri! The convention will be held July 10-15 on the campus of Washington University in Saint Louis. The convention packet with price and schedule will be online soon. If you have not attended a National Convention, there are Convention Grants available to offset the cost for a sponsor and three students. Money has been set aside for this--do not be afraid to apply for a grant! I might have never attended a National Convention had I not applied for a Convention Grant back in 2008. It's an amazing experience for both you and your students to meet and compete against outstanding mathletes from all over the world!

Mu Alpha Theta has again partnered with Study Buddy, an online math and science tutoring program that serves students in middle and high schools. Your students can earn service hours for their participation and even win a trip to the 2016 National Convention. Visit the Mu Alpha Theta website and look under "Chapters" for more information.

Don't forget to contact your middle school colleagues and tell them about Chi Alpha Mu, our middle school and junior high math club. Information is available at [www.chialphamu.org](http://www.chialphamu.org). You will eventually inherit their students, so piquing their interest in a math club before high school will pay dividends for you later.

Finally, if you have questions or suggestions contact your Regional Governor or Kay Weiss, Executive Director of Mu Alpha Theta.

I hope you have a great school year!



Betty Hood  
Mu Alpha Theta President

## UPCOMING DATES

**Oct. 31 - Nov. 15 :** ARML Power Contest Round 1

**Nov. 1 - Dec. 15:** Log1 Contest Round 1

**Nov. 2 - 15:** RCML Interschool Test

**Nov. 15:** RCML Interschool Test scores must be uploaded

**Nov. 15:** Last day to compete in the ARML Power Contest Round 1

**Nov. 25 - 27:** National Office Closed for Thanksgiving Break

**Dec. 1 - Jan. 15:** Log1 Contest Round 2

**Dec. 15:** Log1 Contest Round 1 test scores must be uploaded

**Dec. 24 - Jan. 1:** National Office Closed for Winter Break

## NATIONAL OFFICE NEWS

Mu Alpha Theta continues to grow and served over 108,000 student members as of June 30, 2015. Of course, almost 53,000 of those members graduated in June, so we start the new school year and do this all again! You will find this newsletter jam packed with all sorts of offers and financial aid for you, your chapter, and your students.

So far this fiscal year, we have supported 20 members who used our Summer/Research Grants to attend mathematics programs or to support their math research projects. These are very talented math students, and we are glad we can help them to extend their knowledge and love of math. If you have a student thinking about attending one of the great summer math programs listed under "Summer Grants" on our website, make sure they are registered as an official member of Mu Alpha Theta this fall so they will be eligible for \$2,000 of support.

Betty mentioned the spring elections. We really need volunteers to step forward who might be willing to serve on the Governing Council of Mu Alpha Theta. Please call or email me if you have any interest or questions about what the job entails. There are many "perks" for members of the Governing Council, including paid travel and Per Diem, free registration for the National Convention during your four year term, and a free single room for all meetings. The Governing Council meets for one to two days in January and arrives on the Friday before the start of each National Convention. We meet Saturday, Sunday morning, and Monday morning. We always have a great group of folks that attend these meetings from around the country. Think about joining us. We need volunteers from Region 1 and Region 2 this year and someone to run for the President-Elect position.

If you are ordering certificates or merchandise using our online system, remember these can be put on the same order. After ordering your new member registrations, just click on the Merchandise link on the left to add your other items to the Shopping Cart before you go to Check Out. Please try to wait before turning in your order until all students wishing to join have turned in their application to you. I usually tell teachers to give a deadline for applications and then wait an extra week. There are always "stragglers", students that forgot or missed the deadline. Since we pay the postage on your first three orders each semester, we can really save money if you don't submit numerous small orders.

Please see the Calendar link located on the right side of our new website. We have listed all the deadlines for contests, scholarships, and awards there. Looking for a date? Check it out.

Speaking of the new website: Please view the two links at the upper right below the Chapter Login button. One summarizes all our resources for our chapter sponsors. The other is a WONDERFUL link for current members to see all we offer them. Remind your students to take a peak!

Have a great semester. We are in the office M – F from 9:30 AM to 6:30 PM but will be out during federal and school holidays. Plan your orders accordingly so we can get them to you when you need them.

*Kay Weiss*

## MAZES AND LABYRINTHS *by Kay Weiss*

When I was a child, I loved to do mazes. Solving these geometric puzzles at an early age must have helped develop my love of mathematics and the puzzles in the real world that math helped me solve.

A great website to explore with your members, to learn about mazes and labyrinths, is <http://gwydir.demon.co.uk/jo/maze/intro/index.htm>.

The website provides links to many mazes and labyrinths in public places - the kind made of hedges, corn, painted on walls, cut out of metal, or in artwork. (See especially the webpage "Other" at this website, also.)

From <http://art.tfl.gov.uk/labyrinth/about/>, "Mark Wallinger, one of the UK's leading contemporary artists, has created a major new artwork for the London Underground to celebrate its 150th anniversary. The result, commissioned by Art on the Underground, is a multi-part work on a huge scale that will be installed in every one of the Tube's 270 stations, with at least one artwork at each station. Rendered in bold black, white and red graphics, the artworks are produced in vitreous enamel; a material used for signs throughout the London Underground, including the Tube's roundel logo, whose circular nature the labyrinth design also echoes."



**Positioned at the entrance of each labyrinth is a red X. This simple mark, drawing on the language of maps, is a cue to enter the pathway. The tactile quality of the artwork's surface invites the viewer to trace the route with a finger, and to understand the labyrinth as a single meandering path into the center and back out again – a route reminiscent of the Tube traveler's journey.**

Can't get to London anytime soon? Find the pictures online and download the worksheets from [http://art.tfl.gov.uk/labyrinth/wp-content/uploads/2013/04/MW\\_MATH\\_TRAIL\\_TUBE\\_TRAIL\\_AW\\_REV.pdf](http://art.tfl.gov.uk/labyrinth/wp-content/uploads/2013/04/MW_MATH_TRAIL_TUBE_TRAIL_AW_REV.pdf) to explore at a chapter meeting or two.

Want to explore the connection between mazes and mathematics? See <http://www.math.stonybrook.edu/~tony/mazes/index.html>

Want to find one to visit and walk through near you? Try <http://www.themaize.com/#!find-a-maize/c115p>.

Have some fun. Math is more than doing math problems.



# Washington University in St. Louis 2016 National Convention



**The 46<sup>th</sup> Annual Mu Alpha Theta National Convention will be held July 10-15, 2016 in St. Louis at Washington University.** Todd Taylor and Adam Kolasa from Vestavia Hills High School in Alabama will host this year's convention. Paul Kustos from Hoover High School in Alabama will act as test coordinator.

The registration fee will be \$530 if a \$50 deposit per person is paid by April 1st, 2016. Anyone not paying the early deposit will pay \$580. All registration funds must be sent by check to the National Office post marked by May 16th.

The registration fee includes all events and testing, residence hall rooms, most meals, and a trip to Six Flags St. Louis/ Hurricane Harbor. (While the ticket includes both parks, schools may choose to attend only one.) If participants choose not to go to Six Flags, there are many other free attractions within walking distance or accessible from the light rail stop at Washington University, such as the St. Louis Zoo, different museums, and the Gateway Arch in downtown St. Louis. The City Museum, <http://www.citymuseum.org/>, is another popular St. Louis attraction that must be seen to be believed. Think: playground for adults. (Group rates can be provided for other attractions through the National Office upon request. Transportation to these other sites may also be provided, depending upon numbers.)

See <http://www.mualphatheta.org/index.php?chapters/national-convention> for a copy of the Preliminary Information Packet, which includes all math competitions and chalk talk topics. The final information packet will be posted soon.

## NEED-BASED CONVENTION SCHOLARSHIPS

The sponsor of each chapter attending the National Convention may nominate up to two members for a Need-Based Scholarship. Up to fifty will be available. The scholarship will cover the member's registration and reimbursement of up to \$270 for transportation to the 2016 St. Louis National Convention. The application deadline is May 15th. See *Scholarships* on our website to download the application.

## NATIONAL CONVENTION GRANTS

Mu Alpha Theta will award a limited number of \$3,000 Convention Grants to the 2016 St. Louis Convention. Each grant will cover free registration for a sponsor and three students, who must not have graduated before the convention. The remaining funds may be used for additional student registration costs or to reimburse travel expenses. If a school is awarded a Convention Grant, additional participants from that school will only be charged the early rate of \$530. To be eligible for a grant, a Mu Alpha Theta chapter cannot have attended a National Convention previously. The intent of the grant is to allow the teacher and students to see what our National Convention is all about. Only schools who have a math sponsor and three eligible students should fill out the application.

To apply for a grant, complete the application form, which consists of the names of the applicants and two paragraphs about the activities your chapter has participated in during the past year. We also ask how attending the National Mu Alpha Theta Convention will benefit your chapter. See <http://www.mualphatheta.org/index.php?grants/convention-grants>, on our website for more information and to download the application. Email the application by **April 1st** to [matheta@ou.edu](mailto:matheta@ou.edu) or snail mail to:

Mu Alpha Theta  
National Convention Grant  
c/o University of Oklahoma  
3200 Marshall Ave, Ste 190  
Norman, OK 73019

## GOVERNING COUNCIL DECISIONS FROM THE JULY 2015 MEETING

1. We will return to interviewing candidates for the Kalin Award only in person at the summer national convention. The interviewed candidates that do not win the award will now receive \$500 each. The winner's school will receive a \$1,000 Chapter Grant.
2. The Governor's Leadership and Service Award was established to honor a graduating member for their service to their Mu Alpha Theta chapter.
3. An additional \$6,000 will be available for Classroom Teaching Grants. These will reimburse former Mu Alpha Theta members, who are in their first three years of teaching mathematics, for classroom math supplies, professional meeting attendance costs, or professional math organization dues.

## ANNUAL CHAPTER REPORT

In January, Mu Alpha Theta will email a Yearly Chapter Survey to each chapter asking about your club and its activities. We would like to post ideas online for other chapters to see how you spend time at meetings, the outside activities in which your members are involved, and other information about your chapter. We will ask you to note any keywords that describe each of your entries so we can set up a searchable online database of ideas at our new website. Then, if you need a service project to raise money, want some ideas for topics of math your students could research, want a new idea to stimulate having fun with math at a meeting, you will have a place to find those ideas.

The survey will include some other questions about the demographics of your club and the AMC may ask some questions of interest to their competition.

We will also have a random drawing for a \$500 Chapter Award for all chapters that submit the Yearly Chapter Survey by mid-May. I hope you will consider taking the time to respond when you get the survey.

## WE HAVE FREE STUFF!!!!!!

### TI CALCULATORS

Mu Alpha Theta still has TI 84 Color and a few TI 89 calculators to give away. We will provide one calculator per 12 members to active chapters for a maximum of two per school. We donate these to schools that have not received them within the past seven years, since our supply is limited. Calculators may be used as a prize for one of your talented members, as a prize in a math competition your chapter runs, to auction to raise funds for your chapter, or to keep as a chapter resource for member use. We may provide additional calculators as competition prizes, depending on supply. The sponsor who emails the request should let us know which calculator(s) they would like to receive.

### “HARD PROBLEMS” DVD

Mu Alpha Theta is offering a free copy of *Hard Problems* to any active chapter requesting one. *Hard Problems* is a documentary about the extraordinarily gifted students who represented the U.S. in 2006 at the world's toughest math competition - the International Mathematical Olympiad (IMO). One DVD per chapter while supplies last.

### MATHEMATICA

Mu Alpha Theta has free copies of the computer algebra system Mathematica that it will award to a maximum of three members per active chapter. Members should be studying Calculus to receive a copy.

To request copies, sponsors may email [matheta@ou.edu](mailto:matheta@ou.edu) with the names and email addresses of the students. The Mathematica software is a downloadable file and the license is good for one school year.

### WOULD YOUR CHAPTER LIKE TO COMPETE IN THE ARML POWER CONTEST FOR FREE?

ARML and Mu Alpha Theta will provide free registraion for eight chapters to compete in the ARML Power Contest. Email [matheta@ou.edu](mailto:matheta@ou.edu) to be one of the eight chapters. These will be awarded on first come, first serve basis.

### HAVE YOU UPDATED OUR ADDRESS?

Last summer the National Office moved to a new location. Please check with your bookkeepers or accounts payable person to make sure they have our updated W-9 form. We are still receiving a lot of checks with our old address on them. Please make sure to update all contact information for Mu Alpha Theta to:

**Mu Alpha Theta  
c/o University of Oklahoma  
3200 Marshall Ave, Suite 190  
Norman, OK 73019**

***Please note: At the current time, invoices generated through our online system after an order has been placed, still has our old address listed. Please ignore the old address. We will attempt to get this changed soon.***

# MU ALPHA THETA AWARDS

## RUBIN AWARD (For Chapters)

The Rubin 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 is presented to the Mu Alpha Theta chapter which has a history of outstanding mathematics service to its community or its school for at least two years. This service must promote interest in mathematics and benefit a group other than its own chapter. A cash award of \$2,500 and a plaque will be presented to the winning chapter. No school may receive the award more than once. **Applications are due March 1st.**

## REGIONAL SPONSOR OF THE YEAR AWARD

Mu Alpha Theta established this award to honor outstanding sponsors of Mu Alpha Theta chapters who may not have attended the National Convention. Each year the Regional Sponsor of the Year Award will honor a current sponsor of an active chapter from each region who has labored tirelessly and made significant contributions to Mu Alpha Theta. To be nominated, the individual must have served as a Mu Alpha Theta sponsor for at least five years. They may not currently be a member of the Mu Alpha Theta Governing Council. The award includes a \$1,000 cash award to the winner from each region and a Grant of \$1,000 to the sponsor's chapter. **Applications are due March 15th.**

## SISTER SCHOLASTICA AWARD

The Sister Scholastica Most Committed Sponsor Award was created in 1994, at the suggestion of the student delegates at the National Convention. The award is named after Sister Scholastica, who was a dedicated sponsor from 1972 and a fixture at the National Conventions, until her retirement. Only sponsors attending the National Convention may be nominated and the winner may not currently be a member of the Mu Alpha Theta Governing Council. One student from their school will speak to the Student Delegates who vote to select the winner. The winner of the Sister Scholastica Award will receive a \$2,000 cash prize and a \$1,000 grant for their chapter. **Applications are due June 15th.**

## HUNEKE AWARD

Mu Alpha Theta established this award in 1986 in honor of Harold Huneke, a former Secretary/Treasurer of the National Mu Alpha Theta. Each year the Huneke Award honors a current or retired sponsor who has made significant contributions to Mu Alpha Theta. This award is a peer-nominated award. In addition, nominees must have served as a Mu Alpha Theta sponsor for at least five years, have attended at least two National Conventions (or will attend a second convention this year), and not currently be a member of the Mu Alpha Theta Governing Council. The winner will be announced at the National Convention, but does not need to be present at the Convention to win. The award includes a \$2,000 cash award to the winner and an award of \$1,000 to the sponsor's chapter or former chapter. **Applications are due June 15th.**

## 2015 AWARD RECIPIENTS

**Rubin Award:** John A. Ferguson Senior High School, Miami, FL

**Sister Scholastica:** Elizabeth Funk, Hillsborough High School in Tampa, FL

**Huneke:** Dr. Tom Tosch, Mount Rainer High School in Des Moines, WA

### Regional Sponsor of the Year Award

Region 1 – **No nominees**

Region 2 – Pragati Bannerjee, Roy Miller High School in Corpus Christi, TX

Region 3 – Doug Porter, Marion High School in Marion, IN

Region 4 – Sue Traynham, Walter L. Sickles High School in Tampa, FL



# MU ALPHA THETA GRANTS

## CHAPTER GRANTS

**Has your chapter applied for a chapter grant?** Mu Alpha Theta would like to help support chapters so they can provide interesting mathematical experiences for their members, others at their school, or their local community. Chapter grants provide **up to \$1,000 for chapter activities** which stimulate an interest in mathematics. No chapter will be granted more than \$1,000 over time, but a chapter may apply more than once if they have not reached their \$1,000 limit. Some ideas for how to use the grant might include a math-related outing, hosting a math competition, or to provide a speaker honorarium for a mathematician who speaks to your chapter.

## CHAPTER COMPETITION GRANTS

Mu Alpha Theta is offering Chapter Competition Grants of up to **\$500 per active chapter** to help pay entrance fees or expenses associated with a math competition in which the chapter members wish to compete. No chapter will be awarded more than \$500. Funds are available on a first come/first serve basis until our budget for these grants is depleted. There is no deadline for the application, but once funds are gone, further grants will not be possible for the remainder of that fiscal year.

## CLASSROOM TEACHING GRANT

Mu Alpha Theta Educational Foundation offers a limited number of Classroom Teaching Grants. Any former Mu Alpha Theta member, who has begun a mathematics teaching career, can apply for up to **\$1,500** during their first, second, or third year of teaching. Funds may be used to reimburse the teacher for classroom supplies, math society meeting registration, or professional memberships. If you know of a former student that has become a mathematics teacher, please spread the word about these grants.

*Please remember that grants will be competitive and not all grant requests may be funded.*

*Visit our website to download the applications and for more details about our Grants and Awards. Or email [matheta@ou.edu](mailto:matheta@ou.edu) for more information.*

## CONGRATULATIONS TO CHAPTER, COMPETITION AND CLASSROOM TEACHING GRANT RECIPIENTS!

Here are some schools who have already received Grant funding:

### **Tuscarora High School - VA**

\$999 in funds to visit Museum of Mathematics in NY (Chapter Grant)

### **St. Bernard School -CT**

\$644.35 in funds for Supplies and Transportation for 4-8th grade Math Day (Chapter Grant)

### **Saint Andrew's School- FL**

\$500 in funds to participate in FAMAT State competition (Competition Grant)

### **Nazareth Academy - IL**

\$500 in funds for ICTM Competition (Competition Grant)

### **Sarah Cleveland**

### **Dulles High School- TX**

\$1,166.89 in funds from a Classroom Teaching Grant

### **Marissa Maiello**

### **Morris Knolls High School - NJ**

\$1,444.82 in funds from a Classroom Teaching Grant

Go to the **Grants** section of the MA $\Theta$  website to find out more and download an application!

# CHAPTER NEWS

## Brewster High School Hosts 7th Annual Math-a-Thon

The Mu Alpha Theta chapter at Brewster High School in Brewster, NY, hosted their Seventh Annual Math-a-thon on April 11th, 2015. John F. Kennedy third-graders participated in the Math-a-Thon also. They raised over \$3,000 for St. Jude Children's Research Hospital.

Seventy-three third graders from JFK along with approximately 120 Mu Alpha Theta members gathered in the high school cafeteria to complete the Math-a-thon. The third grade students raised money by getting family, friends and teachers to sponsor them for finishing math problems. The students completed math booklets with the assistance of the high school students; they also competed in various fun math activities including playing cards, a scavenger hunt, tangrams, bowling, hopstock and more.

Over the past three years, the Mu Alpha Theta has raised over **\$12,000** for St. Jude's.



**Top:** Brewster High School Mu Alpha Theta students welcome the third-graders



**Bottom:** Brewster High School Mu Alpha Theta students engaging with the third graders to help solve math problems.



# CHAPTER NEWS CONTINUED...

## Walkway Project at Evans High School

The students of Evans High School's Mu Alpha Theta came together to pay for a project to construct a walkway to access the math wing at the school in Evans, GA. During inclement weather dirt and grass were constantly being tracked into the math classrooms of the building. \$2000 in funding was raised by the club over several years of food sales and by donations. The walkway was built by students in the industrial arts classes at the high school. The walkway is approximately 200 feet long. This was the last section of a pathway that now extends around the full length of the school. Mu Alpha Theta congratulates the chapter for their service to their school.





# PI DAY CELEBRATIONS



The above photos are from Saint Andrew's School in Boca Raton, FL.



The above picture is from New Mexico Junior College. They partnered with the Community Coalition on Drugs in Lea County for their Pi Day Celebration. The picture is Cone Cakes: Sugar cones with Miniature cupcakes.

Thank you to all those who have shared your activities with us. For full details on these Pi-Day Celebrations, see the online blog section of our website.

We always enjoy hearing about your special events and Mu Alpha Theta activities with your students! If your chapter has something to share with others, email the National Office at [matheta@ou.edu](mailto:matheta@ou.edu).

Be sure to check out our blog at <http://www.mualphatheta.org/index.php?blog-news> for more exciting chapter news and updates!!!



## THANK YOU TO THOSE WHO HAVE SERVED:

### **Retired:**

North Bay Haven Charter Academy, Panama City, FL: Angela Simonds  
Riverdale HS, Murfreesboro, TN: Gail Lewis  
Athol HS, Athol, MA: Anne Roy  
Franklin HS, El Paso, TX: Emma MacKay  
Rickards HS, Tallahassee, FL: Bruce Fraser  
Runnels School, Baton Rouge, LA: Elizabeth Novak  
Hillsborough High School, Tampa, FL: Dean Oppegard  
Brooks Academy of Science and Engineering, San Antonio, TX: Shara Contreras  
Sebastian River High School, Sebastian, FL: Brian McMahon  
Sebastian River High School, Sebastian, FL: Brian Kerekes  
Roland Park Country School, Baltimore, MD: Theodora Reynolds  
Spruce Creek HS, Gillian Rogan  
Nyack High School, Nyack, NY: Orande Daring  
Macon East Academy, Cecil, AL: Martha Donaldson 10+ yrs  
Kingwood Christian School, Alabaster, AL: Shelia Minor  
Northside Health Careers HS, San Antonio, TX: Janice Webb, 30 yrs  
North Pontotoc Attendance Center, Ecu, MS: Debbie Stepp  
G. Holmes Braddock HS, Miami, FL: Manuel Vilchez  
Magnolia HS, Magnolia, AR: Pam White  
Kamehameha Schools, Honolulu, HI: Chauna Valdez  
Our Lady of Lourdes Academy, Miami, FL: Margaret Lynch  
Keyser HS, Keyser, WV: Deborah Seldomridge  
Lincoln-Way Central HS, New Lenox, IL: Jennifer Mudrock  
Paul G. Blazer HS, Ashland, KY: Wanda Riddle, 37 yrs  
Charles Henderson HS, Troy, AL: David Laliberte  
Los Angeles Center for Enriched Studies, Los Angeles, CA: Richard Rasiej  
Cypress Creek HS, Houston, TX: Marc Reisman  
Baton Rouge Magnet High School, Baton Rouge, LA: Cara O'Dell  
Benjamin Banneker Academic High School, Washington, D.C. Sandra Allen, 20 yrs  
Donoho School, Anniston, AL: Chelsea Robinson  
Madison Academic Magnet HS, Jackson, TN: Phillip Scott  
San Benito High School, San Benito, TX: Roxanne Jimenez  
Prescott High School, Prescott, AZ: Sherry Baca  
Parkway High School, Bossier City, LA: Judy Kemp  
Bement High School, Bement, IL: Diane Benzek, 11 yr  
Bishop Garcia Diego High School, Santa Barbara, CA: Michael Fay  
Randolph County High School, Wedowee, AL: Deborah Pate 4 yr  
Walter Hines Page High School, Greensboro, NC: Nagmeh Tavana  
Lawrence County High School, Monticello, MS: Donna Wilson  
Elmore County High School, Eclectic, AL: Amelia Barton  
Pine View School, Osprey, FL: Eida Gullick, 11 years  
The Greenhill School, Addison, TX: Dr. Barbara Currier, 15 years  
Shippensburg High School, Shippensburg, PA: Sharon D. Boyles  
Wakefield High School, Raleigh, NC: Mona McKinnon  
Clarksdale High School, Clarksdale, MS: Sandra Tomlinson  
Stuttgart High School, Stuttgart, AR: Carolyn Elder, 40 years  
Whitehall High School, Whitehall, PA: Nancy Buckno  
Faith West Academy, Katy, TX: Karen Marcum  
Volunteer High School, Church Hill, TN: Misty Armstrong

### **Deceased:**

Montini Catholic High School, Lombard, IL: Robert Huntoon

# STUDENTS

## National Student Delegate Officers:

### **President**

Ashhab Thakur  
Region IV  
Fort Myers Senior High  
School  
Fort Myers, FL  
au7thakur@gmail.com

### **Vice President**

Benjamin Jones  
Region III  
Farragut High School  
Knoxville, TN  
benjamindanieljones@  
gmail.com

### **Secretary/Treasurer**

Chi Cao  
Region II  
Baton Rouge Magnet High  
School  
Baton Rouge, LA  
ccao8197@gmail.com

### **Parliamentarian**

Rhiana Martin  
Region I  
Tahoma Senior High School  
Covington, WA  
rubberduckyrhi@live.com

## MESSAGE FROM YOUR STUDENT DELEGATE PRESIDENT

Hey everyone!

I'm still in awe of the amazing National Convention that Mu Alpha Theta held in the beautiful mountains out at the University of Utah. I had an incredible time on the peaks with my best friends, even as some of them discussed the elevation angles of the mountains and engineering behind the ski lifts... but I digress. The level of competition was incredible, but the friendships I saw forming in the midst were even more exciting.

Some of these friendships I made were with our new incoming Mu Alpha Theta Student Delegate Officers: Parliamentarian, Rhiana Martin from Tahoma Senior High School, Secretary/Treasurer, Chi Cao from Baton Rouge Magnet High School, and Vice President (and card game audience) Ben Jones from Farragut High School. I'm honored to be able to work with such a kind, motivated officer corps who will be working hard throughout this year to ensure the success of the Student Delegate Organization and a smooth program year nationally.

Next summer, we'll be on the campus of Washington University in St. Louis for the 2016 National Mu Alpha Theta Convention. Between now and then, the officers and I have agreed that our priorities will be to increase the number of attending schools, create more nationwide activities to unite the student body, and create a better system of communication between our members. I'm always excited to take a new test or learn a new skill, but the connections that we make through Mu Alpha Theta can prove to be even more valuable than all of that.

Before I finish this letter, I must send my sincere thank yous to Maritza, Blake, Lin, and especially Nick. They did an incredible job this year incorporating activities and running delegate meetings. Nick Pena inspired me to join the student organization and give back to this program that has given us so much. Please, continue to help Mu Alpha Theta grow and prosper by joining into this wonderful organization.

Sincerely from "the boy who eats curry every night,"



Ashhab Thakur



Connect with Mu Alpha Theta and Chi Alpha Mu through facebook for upcoming events, news and more! See you all online!

## *new!* GOVERNORS' LEADERSHIP AND SERVICE AWARD

This award was established in 2015 by the Governors of Mu Alpha Theta to recognize a graduating member for their outstanding leadership skills and exceptional service to their Mu Alpha Theta chapter. In 2016, the winner will receive \$4,000. The winner may choose to receive the \$4,000 as a scholarship to his or her college or as a cash prize.

Each active chapter may submit only one nomination per year. The sponsor of the chapter will determine how the chapter's nominee is selected, unless the sponsor is related to a possible nominee. In this case, a number of possible candidates should be submitted to another teacher or counselor at the school with each candidate's qualifications so one member can be selected. The person selecting the nominee will also fill out the application form. (If not the chapter sponsor, a note should be included as to why they did not fill out the form.)

An application can be downloaded from [www.mualphatheta.org](http://www.mualphatheta.org)>Awards>Governor's Leadership and Service Award.

All nomination materials must be postmarked no later than **March 1st**. If possible, mail all required items in the same 10" x 13" envelope to:

**Mu Alpha Theta  
Governor's Leadership and Service Award  
c/o University of Oklahoma  
3200 Marshall Ave, Suite 190  
Norman, OK 73019**

The winner will be determined by the Governing Council and will be announced no later than May 1. A student who wins this award is not eligible for any other named award, i.e. Kalin Award or Andree Award, although they are eligible for all scholarships.

### ANDREE AWARD

The Andree Award, named in honor of Mu Alpha Theta founders Richard and Josephine Andree, is awarded to a student interested in becoming a mathematics teacher. Two awards are presented annually, one to a high school senior member and one to a former or current member now in college. Each Andree Award winner receives a \$2,500 cash prize. The winner may choose to receive the \$2,500 as scholarship money to the college he or she is attending, rather than as a cash prize. **Applications are due March 1st.**

### KALIN AWARD

The Kalin Award was created by a grant from Dr. Robert Kalin of Florida State University, a former President of Mu Alpha Theta. The Mu Alpha Theta Educational Foundation continues to support the Kalin Award. This award recognizes graduating high school seniors who have excelled in mathematics and performed notable service to Mu Alpha Theta communities. The winner of the award receives a \$4,000 prize and an additional \$1,000 Chapter Grant will be awarded to their chapter. The winner may choose to receive the \$4,000 as scholarship money to the college he or she will be attending, rather than as a cash prize. **Applications are due March 1st.**

## SUMMER GRANTS

Mu Alpha Theta is offering Summer Math Program/Research Grants to Mu Alpha Theta members. 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.) Grants may be requested for up to \$2,000 per student, if the student has been a member since, at least, the semester prior to the application. A member may apply more than once, but will be awarded no more than \$4,000 in total.

Programs that may qualify include: PROMYS, Texas Mathworks, Canada/USA Mathcamp, the Secondary School Program at Harvard, the Women's Technology Program at MIT, AwesomeMath, Johns Hopkins University Center for Talented Youth, Stanford University Mathematics Camp, COSMOS. Other programs will also be considered.

## MU ALPHA THETA SCHOLARSHIPS

Mu Alpha Theta and our Educational Foundation will continue to award a number of scholarships this year. Scholarship funds may be used within the first 18 months after the date the scholarship is awarded. Any graduating high school senior or two-year college student who is an active member of a current Mu Alpha Theta chapter is eligible. The nominee should be a distinguished mathematics student and should have shown loyalty and dedication to their Mu Alpha Theta chapter, enthusiastically participating in local projects with evidence of service in the area of mathematics. Each chapter may submit applications for **up to two members**. It is up to the chapter sponsor to determine what names to submit, if more than two students wish to apply.

Three \$5,000 scholarships will be awarded to top scholarship candidates: the Mary Rhein Memorial Scholarship, the Sallie Scudder Memorial Scholarship, and the Paul R. Goodey Scholarship. The Goodey Scholarship recognizes a graduating student who has done exceptional mathematical research.

Our remaining scholarships will provide \$4,000 each.

### KALIN AWARD OPTION (See previous page for Kalin Description)

If the high school student applying for a scholarship is the sponsor's choice for the Kalin Award, an additional application for the Kalin Award does not need to be completed. Instead, the sponsor should check the box at the bottom of the "Sponsor Letter of Recommendation Form" and write additional paragraphs as to why they feel the applicant deserves this award. If the student has been selected by their sponsor to apply just for the Kalin Award, they should check the box on the top of the application form which reads "Applying for Kalin Award Only".

The application must be postmarked by **March 1st**

## 2015 CHANGES TO THE KALIN AWARD

- 1.) The winner of the Kalin Award will continue to receive the \$4,000 prize with the addition of a \$1,000 Chapter Grant to the award winner's chapter.
- 2.) All other interviewed Kalin finalists will receive a \$500 cash award.
- 3.) All Kalin finalists must be present at the National Convention to be interviewed in person by the Governing Council.
- 4.) Students who win the Kalin Award may also win a scholarship but will not be considered if they had already won another named award, i.e. Governor's Leadership and Service Award or the Andree Award.



## CONTESTS & COMPETITIONS

### LOG1 CONTEST

This is an excellent opportunity for schools to participate in a mathematics competition similar to our National Convention contests. Schools compete against other schools from across the country and the world, while staying right at their own school. The Log 1 contest is FREE, but participation is restricted to schools with an active Mu Alpha Theta chapter.

The 2015-2016 Log1 Contest will again be run by the Hoover High School Math Team in Hoover, AL. The contest is supported by a grant from Mu Alpha Theta. The contest consists of three rounds. In the first round, students may take either the "Functions" topic test or the "Geometry" topic test. Round one runs from **Nov 1, 2015 to Dec 15, 2015**. Each Topic Test will consist of fifteen open-answer problems to be solved without a calculator in thirty minutes. In the second round, which runs from **Dec 1, 2015 to Jan 15, 2016**, student may take either the "Number Theory" test or the "Sequences & Series" test. The third round is an individual test of general mathematics knowledge and will run **Jan 16, 2016 to Feb 15, 2016**. Problems will range from easy to difficult in an effort to provide confidence and challenges to all students.

**Mu Alpha Theta will award 100e = \$271.83 to each of the top ten schools in each region, for a total of \$10,873.20 in prize money.** See <http://www.mualphatheta.org/index.php?contests/log-1-contest> for other awards to be presented.

### MATHEMATICAL MINUTES VIDEO CONTEST

The Mathematical Minutes Video Contest will run again for the 2015-2016 school year. We want chapters to make a 2–5 minute math video that teaches a math idea or shows an interesting math problem in an entertaining way. Last year's winners can be found online under *Contests > Mathematical Minutes*.

**This year all submissions must have the chapter sponsor's signature saying they have viewed and approved the video's content. Parodies should be of G rated material.** Only the top submission per school is eligible for prize awards, although each chapter may submit up to three videos. Award money may be requested to either go to the chapter or to the students by check.

Eight finalists will be posted online for other chapters to view and vote on their favorites. Up to \$3,000 will be split between the winners, amounts to be determined by the Governing Council.

Videos need to be posted on YouTube before midnight EST, **February 28, 2016**. To view new guidelines and a short video presentation about the contest, go to <http://www.mualphatheta.org/index.php?contests/mathematical-minutes>.

### ROCKET CITY MATH LEAGUE

The RCML is a free, international math contest open to all middle, high school, and two-year college students enrolled in Pre-Algebra through Calculus or above math courses.

### RCML CONTINUED...

It is administered by the students at Grissom High School in Huntsville, AL and supported by a grant from Mu Alpha Theta.

Participants are placed into one of five divisions based on the level of math courses in which they are enrolled. Each division will be given three, 10 question tests lasting 45 minutes. A two-level, interschool team test is also available. Tests are sent to registered schools via email before each round, and scores are entered into an online database. Trophies are mailed to the top-ranked students and schools at the end of the year. Mu Alpha Theta also provides other prizes as well. Testing dates for the 2015 -2016 competition are:

- **Interschool Test: November 2-15**
- **Round One: January 11-24**
- **Round Two: February 8-21**
- **Round Three: March 7-20**

Register at [www.rocketcitymath.org](http://www.rocketcitymath.org). For more info, visit <http://www.mualphatheta.org/index.php?contests/rcml-contest>.

### ARML POWER CONTEST

The American Regions Mathematics League (ARML) offers a two test Power Contest to be worked on by a team at the students' high school. The Power Contest provides a group problem solving situation similar to the power question found at ARML Competitions.

The mathematics level of the contest problems has been geared so that students in an honors class, in a math club, or on a math team can have a unique problem solving and mathematical writing experience. There is no limit to the size of the team working on each Power Contest problem set, but the time for solving the problem set is limited to 45 minutes. Coaches will receive the contest materials at least one week prior to contest dates and may schedule the contest anytime during the designated week and a half. After completing the contest, student solutions are then mailed back and are graded using a forty point rubric. Trophies are awarded to the top ten scoring teams. The cost is \$50 per school.

#### 2015-2016 Testing Dates:

Oct 31– Nov15, 2015

Feb 27–Mar 13, 2016

Questions: contact Micah Fogel at [fogel@imsa.edu](mailto:fogel@imsa.edu).

Website: <http://staff.imsa.edu/~fogel/ARMLPower/>

ARML and Mu Alpha Theta will provide free registraion for eight chapters to compete in this contest. Email [matheta@ou.edu](mailto:matheta@ou.edu) to be one of the eight.

### AMC

AMC 8: **November 17**

AMC 10A/AMC 12 A: **February 2**

AMC 10 B/AMC 12 B: **February 17**

AIME I: **March 3**

AIME II (Alternate): **March 16**

USAMO: **April 19 & April 20**

For registration deadlines, please go to <http://www.maa.org/math-competitions/about-amc/events-calendar>

## SIGN UP FOR THE STUDY BUDDY TUTORING PROGRAM THIS YEAR!



StudyBuddy

Study Buddy is a national online peer-to-peer volunteer tutoring program designed to address low math and science scores of underperforming middle and high school students. This homework assistance program utilizes online collaborative technology to bring students from different locations across the country together for online math, physics and chemistry homework help.

Study Buddy relies solely on volunteers like you to help struggling students.

Study Buddy is excited to start another year of partnership with Mu Alpha Theta. Over the years, Mu Alpha Theta members have provided free online math homework help to over 20,000 students, and this year we expect to reach many more! Mu Alpha Theta members that tutored last year have already been contacted about continuing as tutors. New tutors are welcome at <http://www.studybuddyhelp.org/study-buddy/> to register at any time. When a tutor registers from a previously unregistered school, a Teacher/Sponsor email is required. We confirm that teacher's status with the school and provide a code so that other registrants associated with that school/teacher can register more quickly.

Here is why Mu Alpha Theta chapters love volunteering through Study Buddy:

**Convenience** – Volunteering from your computer after school or at home, in the evening and/or on the weekend, the ability to schedule yourself in half hour segments and having the flexibility to choose when you wish to help makes Study Buddy an easy volunteer option. This year we are encouraging tutors to use “Scheduled Tutoring”. (Tutors with smart phones will be able to receive a request for tutoring at a specific time, and confirm the appointment directly with the student. Tutoring still takes place within the tutor's book. The scheduling calendar is also accessible on tablets.)

**Make a real impact outside of your own school** – Mu Alpha Theta students will be paired with students who are struggling and may not otherwise have access to a tutor due to economic and/or geographic reasons. Student tutors commit to tutoring one hour per month. Participation will be tracked by software and will serve as community service credit hours. A unique tutor log book tracks each tutor's community service hours and saves each tutoring session automatically. Tutors have the ability to view an online summary of their volunteer community service hours at any time.

**Teachers** – We encourage you to enroll your Mu Alpha Theta members in Study Buddy! Detailed reports of your tutors' activity will be emailed to you once a month, no later than the 15th of the month, and enable you to monitor your students' participation in the program and award community service hours at your discretion. (This year we are suggesting that Lobby Time count at no more than twice the actual tutoring time for any tutor.) As a way of thanking your school for participating, we will make Study Buddy free online tutoring available to your school's entire student population. That means that by signing up your chapter to volunteer, your entire school can benefit from free Study Buddy online tutoring! Our staff is here to help you register the students at your school for tutoring as quickly and seamlessly as possible. And we encourage schools to create a “Same-School” tutoring option for their students. (Students would have the benefit of choosing tutors who attend their school and who have had the same teachers or used the same curriculum as those that need help.)

**A \$1,000 Mu Alpha Theta Chapter Grant** – Study Buddy is proud to announce that NSTEP will provide a \$1,000 Chapter Grant to one Mu Alpha Theta chapter that participates in tutoring this year.

Please email Patty Christian [pchristian@studybuddyhelp.org](mailto:pchristian@studybuddyhelp.org) if you need any other information. Hope you will sign up with Study Buddy soon!