CHI ALPHA MU NEWSLETTER

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NEWS FROM THE PRESIDENT

Welcome back to the 2012-2013 school year. Thank you for sponsoring a Chi Alpha Mu math club. You are providing the students you are working with the opportunity to see math as the exciting, beautiful subject it is and not just a set of textbook exercises.

As you plan your club activities for the year check out our website, www.chialphamu.org, for meeting ideas and a list of contests. Also, try partnering with a teacher in your school who doesn't teach math and let your students see that math is necessary for all kinds of jobs besides being a math teacher. Have them work with a coach to keep statistics for your sports teams. A trip to the treasurer at the board office might answer the question "How much does it cost to run our school for a day?" The librarian might help with the question "What is the average number of words in a book in the library?" They could change miles per hour into inches per second for the science teacher. The list is endless, just use your imagination.

If you are teaching in an economically disadvantaged school and have students who need help with math consider Study Buddy. It is a free, online tutoring program targeted at serving economically challenged students. Go to nstep-online.org for details.

If you have questions or suggestions for how we can serve you, please contact me at botzner@gmail.com or Kay Weiss, executive director of Chi Alpha Mu at matheta@ou.edu.

Have a fun, productive year.

Elizabeth Carol Botzner

Chi Alpha Mu President

NEWS FROM THE NATIONAL OFFICE *by Kay Weiss*

We are excited to start a new school year here at the National Office of Chi Alpha Mu. The office is open from 10:00 AM to 6:00 PM Central time, Mondays through Fridays. We are closed on all national holidays, including Thanksgiving (Nov 23 – 25) and a winter break (Dec 23 – Jan 2). If you need anything, please call 405-325-4489 or email matheta@ou.edu.

At the July Governing Council meeting, the board approved up to $1,000 for Chapter Grants. We have tried this idea with our Mu Alpha Theta chapters and it seems to be well received. Attached to the newsletter, you will find a copy of the grant application form. We will also post this online at the Chi website, chialphamu.org.

Chapter Grants will be available for up to $250 per chapter and may be used to support your activities. Planning a Pi Day celebration and need funds for supplies? Want to invite a special speaker in to talk to your students? It might be nice to present them with a $25 gift card to a local store or restaurant to say "thank you". Need funds to travel to a math competition? Want to buy some math games or software for your club? Use your imagination. No chapter will receive more than $250 over time, and we may not be able to support all grant requests or provide the full amount you request, but let us know how we can help. We have included the application on page 6 of this newsletter. It is also available online.

There was also approval for us to **select a Chi Alpha Mu Coordinator**. This person will help write and edit the newsletter twice a year, come up with ideas to promote math to Chi Chapters, provide outreach to existing chapters and promote membership with new schools. The Coordinator may also help approve Chi Alpha Mu Chapter Grants. In return, Chi Alpha Mu will provide $500 to the Coordinator's club for services rendered. The position has a one-year renewable term, should the arrangement work out. $250 will be sent to the club in March 2013, after the spring newsletter is completed, and the other $250 will be sent in September 2013, after the fall newsletter has been sent out. Remember, you can have your members help with items in the newsletter, if you like. (The National Office will do the final edit, however, and will provide information and articles to be added.)

If you think you might be interested in the position, please fill out an application and submit it to me by October 15th. The application has been posted online and has also been included on page 8 of this newsletter.

We are always looking for math activity ideas. Do you have a favorite to share with other chapters? Please let us know. We would love to add more to the website for others to try.

- FREE TI-84 PLUS CALCULATORS! -

The National Office has five free TI-84 Plus calculators to give away. The first five chapters to email matheta@ou.edu and request one will receive one calculator each.

CHI ALPHA MU T-SHIRT AVAILABLE NOW!

Chi Alpha Mu has added a t-shirt to its merchandise. This light blue shirt features our logo on the front, while the backside displays the Chi Alpha Mu acronym: *Creative Adventures in Math*. T-shirts are available in adult S, M, L, XL, and XXL for $10 each. **Get yours today!**

CLUB MEETING ACTIVITIES

There are all sorts of fun websites with puzzles your students can try if you have a computer lab where they could work. (Maybe your school library offers online access?)

Try: http://www.gamepuzzles.com/pparlor/puzzleparlmm.html Click on a puzzle piece to bring up the puzzle. Student can work in groups or alone. You can also find online games and activities from NCTM at http://illuminations.nctm.org/Activities.aspx?grade=3

How about planning a Math Fun Night for your members and their parents? See http://www.ehow.com/info_8260936_family-night-games-sixth-grade.html for some ideas. Or try math cats' activities idea bank at http://www.mathcats.com/grownupcats/ideabankactivities.html.

There are all sorts of resources at http://www.techteachers.com/mathweb/games.htm.

Do you have a favorite activity? Please email so we can share it with others.

MATH PROBLEMS

#1 Using only addition, subtraction, division, and multiplication, can you make 24 out of each of the following sets of four numbers. For example, the set 1,5,7,9 yields (7-1) * (9-5) = 24.

1,7,7,9	2,4,5,6
2,2,4,5	3,3,3,5
2,3,5,9	3,8,8,8
1,3,6,9	2,3,3,3
5,5,7,7	2,4,5,8
1,3,4,6	1,5,5,5
1,4,5,6	1,6,6,8

(Answers on page 5)

#2 Polypicks, our term, are plane configurations that can be made by connecting congruent toothpicks end-to-end on a rectangular grid. There are five such polypicks (shown below) with three toothpicks since shapes obtained by translation, rotation, or reflection are not considered different.

See if you can find the 16 "tetrapicks" - polypicks made with four toothpicks.

JOIN A MATH CIRCLE!

Looking for fun math activities to try with your chapter? See the website of The National Association of Math Circles, http://www.mathcircles.org/:

"Mathematical Circles are a form of education enrichment and outreach that bring mathematicians and mathematical scientists into direct contact with pre-college students. These students, and sometimes their teachers, meet with mathematical professionals in an informal setting, after school or on weekends, to work on interesting problems or topics in mathematics. The goal is to get the students excited about mathematics by providing a setting that encourages them to become passionate about mathematics...Math Circles can have a variety of styles. Some are very informal, with the learning proceeding through games, stories, or hands-on activities. Others are more traditional enrichment classes, but without formal examinations. Some have a strong emphasis on preparing for Olympiad competitions; some avoid competition as much as possible. Models can use any combination of these techniques, depending on the audience, the mathematician, and the environment of the circle. Athletes have sports teams that deepen their involvement with sports; math circles can play a similar role for kids who like to think about math. One thing all math circles have in common is that the students enjoy learning mathematics, and the circle gives them a social context in which to do so".

The website has a collection of Math Circle Problems, lesson plans, and links to other resources. Some are just for high school students but there are some usable at the middle school level, also. Check it out!

FREE RESOURCES FOR CHAPTERS

The National Office has donated items that we are giving to our Chi Alpha Mu chapters!

Free Key Curriculum Tinkerplots Program and Workbooks!

Key Curriculum Press has donated copies of their TinkerPlots Program, copies of "Digging into Data with TinkerPlots" and copies of their "Survey Toolkit Workbook". Each winning chapter of Chi Alpha Mu will receive a Single User copy of the program and four or five copies of each of the two workbooks. **Act fast because there are only three copies remaining!**

Want to win? Email us with information about what your chapter has been doing during your meetings? Have a fun idea or activity to share with other chapters? We want to hear from you!! Send a picture or two that we may use in our next newsletter. The value of each prize package is about $450. Email Kay Weiss at matheta@ou.edu with your chapter activity!

Free AMC 8 Practice CDs!

MAA has donated copies of their AMC 8 Contest Practice CD. These include the American Junior High Mathematics Exams from 1985-1999 and the American Mathematics Contest 8 from 2000-2007. Email matheta@ou.edu and request your free copy today.

KEY CURRICULUM PRESS COMPLIMENTARY WEBINARS

Key Curriculum Press offers free technology webinars on one of their products every Tuesday throughout the school year, focusing on *Sketchpad*, *TinkerPlots*, and *Fathom*. Space is limited, but if you are unable to attend a webinar, they will be available for viewing under the Archived Webinars section of www.keycurriculum.com. Here is a sample of what they are offering:

September 18: Graphing and Transforming Functions 101 with Sketchpad
September 25: (CCSS) Get to the Core: Constructions and Transformations with Sketchpad
October 2: Sketchpad and Common Core Geometry Standards in the Elementary Grades
October 23: Get to the Core—Using TinkerPlots to Play Games That Build Understanding of Key Ideas in Data, Chance, and Number

Register now for one of these great webinars at www.keycurriculum.com!

CONTESTS & COMPETITIONS

THE AMERICAN MATHEMATICS COMPETITIONS (AMC)

These competitions are run by the MAA. The AMC 8 is open to students in 6th-8th grade.

AMC 8: November 13, 2012
Early Registration Deadline: Oct 6
Regular Registration Deadline: Oct 27
Expedited Registration Deadline: Nov 3

PURPLE COMET! MATH MEET

This is an annual, free, online, international, team mathematics competition for middle and high school students.

Go to http://purplecomet.org/home/home for more information.

MATHCOUNTS

Mathcounts offers a national team competition in May each year. It is hoped that local high school Mu Alpha Theta chapters will provide coaches or team mentors to help your school compete.

Registration Deadline: Dec 14, 2012
Chapter Competitions: Feb 1-28, 2013
State Competitions: March 1-31, 2013
National Competition: May 10, 2013

ROCKET CITY MATH LEAGUE

RCML is a free, international, math contest that is open to all middle, high school, and two-year college students enrolled in Pre-Algebra through Precalculus and above math courses. This competition is completely FREE due to a generous grant from Mu Alpha Theta.

http://www.rocketcitymath.org/

Dates for the 2012-2013 Competition:

Interschool: Oct 29 – Nov 9, 2012
Round 1: Jan 14–25, 2013
Round 2: Feb 11–22, 2013
Round 3: March 11-22, 2013

#2 Answers will be posted to the Chi Alpha Mu Facebook Page!

4/(1-5/6)	6/(1-6/8)
6/(1-3/4)	5*(5-1/5)
5+5+7+7	2*4*(8-5)
9*(3-1)+6	2*[(3*3)+3]
(3*9)-5+2	(3*8)*(8/8)
2+2+(4*5)	(3*3)+(3*5)
1+7+7+9	(4*5)+6-2

#1 Answers

CHI ALPHA MU CHAPTER GRANT APPLICATION

Chi Alpha Mu is offering grants of up to $250 per active chapter to support chapter projects that help to inspire interest in and promote the enjoyment of mathematics. No chapter will be awarded more than $250 in a five year period. 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.**

Please note that there is no promise that every grant will be approved nor that the full amount requested will be available.

Please apply before incurring expenses, when possible, to determine what funds we have available. Once a grant is approved, receipts or invoices for expenses should be sent no later than one month after incurring the approved expenses. Funding will be adjusted to cover actual expenses. Please estimate a bit high, since once an amount for the grant is approved, additional funds will not be available to cover excess expenses.

When sending in receipts or invoices, make sure to tell us to whom the check should be written.

An active Chi Alpha Mu chapter may use grant funds
- to travel somewhere of mathematical interest
- to pay an honorarium or provide a gift to a guest speaker
- to help defray costs for Chi Alpha Mu members to participate in a math event
- to host a math activity for students or teachers from other schools
- to run a fun math event, applied math day, or a Pi Day Celebration with math activities

You come up with the idea, we will try to help. Funds will NOT be granted for an event that is a meant to be a "fund-raiser".

If possible, email, fax, or mail the completed application to:

Chi Alpha Mu Chapter Grant
c/o University of Oklahoma
601 Elm AVE RM 1102
Norman, OK 73019

If emailing, please scan or fax the signature page. No application will be considered without a signature page.

Chi Alpha Mu Grant Application

1. Please email information or **type/print** in black ink.

Name of School: _____

School Address: _____
<p style="text-align:center">Street Address</p>

_____
| City | State | Zip |

Sponsoring Teacher's Name: **_____**

Teacher's Email: _____

Total dollar amount being requested: _____

2. Write a description of the project for which you are asking for funds. Include all details necessary to support your project, including what, when, where, and who will benefit from the funds. Explain how this activity will inspire interest or enjoyment of mathematics. (You may use a separate page.)

3. Please itemized expenses you would like us to reimbursed or pay.

By accepting funds from Chi Alpha Mu, we agree not to receive funds to reimburse us for the same expenses from any other source.

Teacher's Signature: _____ Date: _____

Principal's Signature: _____ Date: _____

Chi Alpha Mu Coordinator Application

Chi Alpha Mu Coordinator: This person will help write and edit the Newsletter twice a year, come up with ideas to promote math to Chi Chapters, provide outreach to existing chapters and promote membership with new schools. The Coordinator may also help approve Chi Alpha Mu Chapter Grants. In return, Chi Alpha Mu will provide $500 to the Coordinator's club for services rendered. The position has a one-year renewable term, should the arrangement work out. $250 will be sent to the club in March 2013, after the spring newsletter is completed, and the other $250 will be sent in September 2013, after the fall newsletter has been sent out. Remember, you can have your members help with items in the newsletter, if you like. (The National Office will do the final edit, however, and will provide information and articles to be added.)

Your Name: _____

Name of School: _____

School Address: _____
<div align="center">Street Address</div>

_____
         City   State   Zip

Your Email: _____

Number of years you have taught math at the middle school level?   _____
How long have you helped run a math club?   _____
Please describe experience that will help you successfully fulfill the required duties listed above. Include any design or publishing work previously done, if applicable.

CHI ALPHA MU
MERCHANDISE ORDER FORM

See www.chialphamu.org for photographs.

QTY	DESCRIPTION	UNIT PRICE	TOTAL
	Button – 3 inch metal button with Chi Alpha Mu logo	$ .50	
	Wristlet – Blue and White debossed wristlet w/ "Chi Alpha Mu"	$1.50	
	Chapter Banner – 18"x 36" felt with dark blue background & grey trim	$15.00	
	T-Shirt – Light blue w/navy print. *Front*: Logo *Back*: Chi Alpha Mu: Creative Adventures in Mathematics		
	S ____ **M** ____ **L** ____ **XL** ____ **XXL** ____	$10.00	
	Achievement Certificate – "The National Office recognizes . . . For Outstanding Performance in Mathematics" with embossed foil seal	$3.00	
	Membership Certificate – Certificate with member's and sponsor's name printed on it. Black on parchment.	$1.00	
	Charter Certificate Reprint	$5.00	
	TOTAL ENCLOSED		

Make Check or Money Order Payable to **Chi Alpha Mu** and mail to:

Chi Alpha Mu
c/o University of Oklahoma
601 Elm Ave.   RM 1102
Norman, OK 73019-3103

Sponsor: _____   Chapter # _____

School: _____Phone: _____

Address: _____

_____

Email Address: _____