

MU ALPHA THETA NEWSLETTER

LOGIC PUZZLES

Using a spreadsheet to help solve logic puzzles is fun. Try using one to unravel the puzzle below. You have six variables: each person, each flavor, each kind of jar, each brand, each kind of cookie, and the place where each is being eaten. See if you can fit the pieces together to solve the puzzle. The answer is on the last page of the newsletter. Can you start with a spreadsheet table and make up a puzzle for others to solve?

Who Stole the Ginger Cookie from the Cookie Jar?

There are five people - Holly, Cameron, Julieanne, Alex and Jackie. Each one stole a special cookie of their favorite brand which was kept in a jar. Each person ate it in a particular place and drank their flavored milk with it.

- *Jackie is next to the person who eats on the lounge
- *Arnotts brand cookies are kept in a round jar
- *The person beside Cameron eats cookies at a table
- *The person who eats Oreos eats in the closet
- *Julieanne likes Paradise brand cookies
- *The person who drinks banana milk is in the middle and owns a tall jar
- *The first person likes vanilla milk
- *Holly is the person on the far right
- *The person who eats in the bedroom drinks strawberry milk
- *The person who owns the tall jar is next to the person who owns square jar
- *Cameron drinks caramel milk
- *The person who likes the Dick Smith brand is next to the person who likes the Coles brand
- *The person who likes the No Frills brand is next to the person who owns a round jar
- *The person who stole the 100s and 1000s cookies is next to the person who owns the brass jar
- *The second person from the right eats No Frills brand and is next to the person who owns a round jar
- *The first person on the left stole the choc chip cookies
- *The person who eats Dick Smith brand is next to the person who eats Paradise brand
- *The second from the left has a brass jar
- *Julieanne is to the right of the person who drinks strawberry milk
- *The person who drinks chocolate milk does it at the table
- *The Paradise brand cookies are eaten in the kitchen
- *The person who eats Tiny Teddies doesn't keep them in a round jar
- *The Coles brand cookies are kept in a mini sized jar

UPCOMING DATES

Nov 1-16: ARML Power Contest Round 1
Nov 26-28: National Office Closed
Dec 1-31: Log1 Contest Round 1
Dec 24-Jan 2: National Office Closed
Jan 1-31: Log1 Contest Round 2
Jan 12-23: RCML Round 1

A ginger cookie was also stolen. Who stole it?

(This puzzle was devised by Year 6G, Our Lady Star of the Sea School, Miranda, Australia, in November 2005)
<http://www.mathsisfun.com/puzzles/who-stole-the-ginger-cookie-from-the-cookie-jar-.html>

MU ALPHA THETA AWARDS

Mu Alpha Theta has six different awards, each presented annually. For eligibility information or to download an application, go to the *Awards* section of www.mualphatheta.org.

ANDREE AWARD *for members*

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 *for members*

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. Interviews of the top candidates will be conducted at the July meeting of the Governing Council. Members present at the National Convention will be interviewed in person. Members who are not attending the National Convention will be interviewed electronically. The winner of the award receives a \$4,000 prize and a distinguished plaque. 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.**

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 prize of \$2,500 and a plaque will be presented to the winning chapter. The award will be presented at the National Convention, but a representative of the chapter need not be present to win. No school may receive the award more than once in a five year period. **Applications are due March 1st.**

SISTER SCHOLASTICA AWARD *for sponsors*

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. 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 16th.**

HUNEKE AWARD *for sponsors*

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 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 16th.**

SILVER SPONSOR AWARD *for sponsors*

The silver sponsor award is awarded to any sponsor who has served for 25 years or more and is bringing students to the National Convention. The sponsor may, upon request, have their convention registration fee waived.

MU ALPHA THETA GRANTS

Mu Alpha Theta currently has four different types of grants available: Summer Grants, Chapter Grants, Classroom Teaching Grants, and Convention Grants.

SUMMER MATH PROGRAM/RESEARCH GRANT *for members*

The Summer Math Program/Research Grants are available to Mu Alpha Theta members who have been a member since, at least, the semester prior to the application. To be considered for the grant, the member's chapter must have been active during the previous twelve months. Grants may be requested for up to \$2,000 per student. A member may apply more than once, but will be awarded no more than \$4,000 in total. Grant money may be used to pay tuition or fees, room and board, or travel expenses for a summer math program at, or sponsored by, an accredited school or university. Money will also be granted to reimburse expenses for doing research in mathematics or applied mathematics.

CLASSROOM TEACHING GRANT *for members*

The Governing Council created the Classroom Teaching Grant to assist new mathematics teachers as they prepare their classrooms. Any former Mu Alpha Theta member may apply. Former members are eligible to receive a grant during their first, second, or third year in a mathematics teaching job. The grant should be used for reimbursement of classroom mathematics materials or for mathematics professional memberships. The grant will provide up to \$1,500 to reimburse expenses.

CHAPTER GRANT *for chapters*

Chapter Grants were created to help support chapters so they can provide interesting mathematical experiences for their members, others at their school, and their local community.

A grant will provide up to \$1,000 to reimburse expenses. 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. Grant funds may be used to support events that stimulate an interest in mathematics. Funding will not be granted for Mu Alpha Theta competitions or State Mu Alpha Theta sponsored competitions.

CONVENTION GRANT *for chapters*

Each year, Mu Alpha Theta awards a limited number of \$3,000 grants to attend the National Convention. Each grant covers 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. To be eligible for a grant, a Mu Alpha Theta chapter cannot have attended a National Convention previously. **The application deadline is April 1st.**

Schools selected will be contacted before the end of April by phone and email. The only responsibility of the winners is to fill out a survey after the convention regarding their experiences. Applying schools should be ready to submit enrollment information should they be selected. Winners of the grants are encouraged to bring more than three students. Additional attendees will be granted the early bird registration rate, as long as full payment for them is received by the May 15 deadline.

MU ALPHA THETA SCHOLARSHIPS

Each year, Mu Alpha Theta and its Educational Foundation award multiple \$4,000 scholarships to members. The scholarships 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. 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.

Applications have a postmark deadline of March 1st.

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 MARY RHEIN MEMORIAL SCHOLARSHIP

The Mary Rhein Memorial Scholarship was named to honor Mary Rhein, a mathematics teacher from Ohio who was active in the National Mu Alpha Theta organization for 22 years. Mary believed that Mu Alpha Theta gives students, who excel in mathematics, an identity and a place to belong. She always encouraged her members to act as ambassadors for Mu Alpha Theta, and she viewed competition as a dynamic way for students to use math concepts learned in the classroom.

THE SALLIE SCUDDER MEMORIAL SCHOLARSHIP

The Sallie Scudder Memorial Scholarship, supported by the Berkeley Math Club of 2000 – 2001, was named to honor Sallie Scudder, who taught Calculus and Softball at Berkeley Preparatory School from 1996 to 2002. She returned to teach at her alma mater, H. B. Plant High School, until her death at the age of 36. She was passionate about making a difference in the lives of her students and had a positive influence on everyone around her.

THE PAUL R. GOODEY SCHOLARSHIP

The Paul R. Goodey Scholarship was established to honor the former Secretary-Treasurer of Mu Alpha Theta who served from 2001-2014. Dr. Goodey, a University of Oklahoma George Lynn Cross mathematics professor, has always encouraged students to see the beauty and power of mathematics through research. The Paul R. Goodey Scholarship recipient is a student who has participated in a mathematics related research project while a member of Mu Alpha Theta.

KALIN AWARD OPTION FOR HIGH SCHOOL STUDENTS

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 on the "Sponsor Letter of Recommendation Form" and write additional paragraphs as to why they feel the applicant deserves this award.

NEED-BASED CONVENTION SCHOLARSHIP

The sponsor of each chapter attending the National Convention may nominate one member for a Need-Based Scholarship. The scholarship will cover the member's registration and reimburse up to \$250 for transportation to the Salt Lake City National Convention. **Application deadline is May 15th.**

Thank you for all you do and for helping us to serve you better!!

CHAPTER NEWS

MEMBERS OF FRANKFORT HIGH SCHOOL VISIT NYC!

Members of the Frankfort High School Mu Alpha Theta chapter traveled to New York City recently to tour many landmarks and see the Museum of Math, the only museum dedicated to mathematics in North America. The chapter used a \$1,000 Mu Alpha Theta Chapter Grant to help defray the costs of the trip.

While at the Museum of Mathematics, the group visited many hands-on exhibits, including the square-wheeled bicycles, human fractal trees, and tessellation station. "Visiting the Museum of Math and seeing all of the cool exhibits they have there was my favorite part of the trip," said senior and Mu Alpha Theta president Trent Flippin.

The students also visited the 9/11 Tribute Center and 9/11 Memorial. Mu Alpha Theta advisor Amy Cowgill said she felt it was especially important that her students see this part of history. "These kids were only 4 or 5 years old in 2001, so while I remember it like it was yesterday, my students don't remember much about it at all." Cowgill arranged for a guided tour of the memorial by someone who experienced the day first-hand. "The best part of the trip had to have been the 9/11 Museum and the 9/11 memorial tour. I didn't completely understand the damage that was done that day until then. When the tour guide, a firefighter who had experienced the day first hand, explained the events and the meaning of all the new buildings being built, I was extremely proud of our nation and most importantly our citizens," said senior Shawn Evans.

Senior Emily Crane said, "I was absolutely speechless. It took my breath away. But I definitely think it's one of the most amazing things I've ever seen and everyone in our country should go see it at some point because it made me feel like I really understood what happened that day." Senior Megan Shaffer agreed. "Out of the whole phenomenal experience, I would have to say that the 9/11 memorial was my favorite. Actually seeing and physically standing at the site of the attack was surreal. I still picture it. It was saddening, but the site was impacting."

The group also spent time in Times Square and walked by Rockefeller Center, Saint Patrick's Cathedral, and Radio City Music Hall.

This article was submitted by Amy Cowgill, Frankfort High School Sponsor.



Our Solution:

Holly did!

See below for full solution:

Person	Alex	Jackie	Julianne	Cameron	Holly
Flavor	Vanilla	Strawberry	Banana	Caramel	Chocolate
Cookie Jar	Mini	Brass	Tall	Square	Round
Brand	Coles	Dick Smith	Paradise	No Frills	Arnotts
Cookie	Choc chip	Tiny Teddies	100s & 1000s	Oreos	Ginger
Place	Lounge	Bedroom	Kitchen	Closet	Table