Georgia’s mathematics teachers are absolutely the best! When GCTM decided to run summer academies to help prepare teachers for the coming CCGPS, we asked for volunteers to help facilitate and organize this massive event and we are so blessed to have so many teachers willing to help out with this endeavor. The information about our academies can be found on the website and on page 3 of this publication. Registration has already closed due to the overwhelming response, but you may contact Peggy Pool to volunteer. We do hope to offer these academies again next year and many of the sessions will be repeated at the Georgia Mathematics Conference at Rock Eagle on October 17 - 19, 2012. Be sure to read the article on the Georgia Mathematics Conference 2012 which is found on page 9 and following.

This weekend proved to be exciting when Georgia’s 15-member All-State Mathematics Team placed 6th in the nation in the American Regions Mathematics League. That our students can compete nationally at this level is a testimony to the Georgia curriculum and to the wonderful teachers that facilitate that instruction. I’m so proud of these young people and am so grateful to the ARML coaches: Chuck Garner, Tom Fulton, Carol Sikes, Don Slater and former ARML mathletes: Miles Dillon-Edwards, Harrison Brown, Jonathan Johnson, Santhosh Karnik, Jake Rooney, Bhanu Kumar and Allen Park. Take time to read the article about our amazing team on pages 12 and 13 of this issue.

Hopefully, the school year ended well for you. I hope all your students achieved their maximum potential and you’re feeling successful and satisfied. Take the summer to reflect on the year and contemplate what changes you need to make to insure an even higher rate of success next year. Plan for the new CCGPS by checking out www.georgiastandards.org and click on Common Core GPS, then Mathematics. Here you’ll find the webinars for each grade level as well as the standards, teaching guides, course descriptions and glossaries.

This website is available to the public, but for more details go to the Learning Village, which is linked from the home page of www.georgiastandards.org.

An important goal for all of us this year is to examine the objectives our students SHOULD have learned and teach in view of the objectives our students WILL learn. This will insure that our students have no gaps in their content knowledge. We owe Georgia’s students the best education we can give them.
The Return of the GMC
Rummage Sale

Do you sometimes feel like one of those hoarders on television? Have you retired and no longer need all the materials you accumulated over your teaching career?

Now is the time to clean out your storage rooms, file cabinets and libraries!

Use some of your summer free time to clear the decks of your excess, share those teaching materials you no longer use and get them in the hands of other teachers in October!

Bring them in boxes to Rock Eagle and donate them to the Rummage Sale!

No individual pricing this year. We will accept $$ donations at the sale site.

Last year every item was taken and put to use in a school or classroom.

What to bring:
- NCTM journals (Mathematics Teacher, Middle Grades Mathematics Teacher, Teaching Children Mathematics)
- manipulatives (bagged and organized please)
- resource books
- useable software
- posters
- sample textbooks

Check the program for the location of the sale and the call for volunteers to help staff the area for an hour or two.

Other teachers want your stuff! Bring it with you to Rock Eagle!
2012 GCTM/GaDOE Summer Mathematics Academies

On your mark, get set... Get ready for the CCGPS! Join us for the Journey.

Whether you need a "Seasonal Tune-Up" or "Major Over-Haul" to feel prepared for implementation of CCGPS, these academies are certain to navigate you in the right direction toward the Road to Success.

GRADES K-5 - Learn more about implementing CCGPS in YOUR classroom

- Create your own station/center activities
- Use manipulatives to enhance fluency
- Collaborate with grade level colleagues to create lessons including assessments and technology

GRADES 6-8 - Changes with help

- New Middle School Content - Get comfortable with new topics
- Manipulatives - Experience when, where, and how to use them
- Assessments - Practical, doable, and easily implemented

GRADES 9-10 - Lifeline for Lessons & Content in High School CCGPS

- Lesson Focus - Content taught in the Algebra and Geometry strands of CCGPS that was not taught in Math I or Math II of GPS
- Lesson content through collaborative activities
- Walk away with a notebook of lessons and activities

GRADES 9-12 STATISTICS - Lifeline for Lessons & Content in High School CCGPS

- Lesson Focus - Probability, Data, Statistics
- Lesson content through collaborative activities
- Walk away with a notebook of lessons and activities

Date Location
June 11-13 Atlanta/Dekalb County
June 13-15 Jackson County
June 19-21 Fannin County
June 25-27 Cobb/Paulding County

June 27-29 Lowndes County
July 10-12 Richmond County
July 17-19 Houston County
July 24-26 Chatham County

Register Now!

For more information and to register, select ONE of the location/grade combinations listed online. The registration fee to attend an academy is $25 per teacher. This includes three full days of CCGPS training and all materials.

Participants attending an academy can be awarded 2 professional learning units (PLUs), provided they have the prior approval form completed by their school system before they attend the academy. Such participants will need to bring this form with them to the academy for our documentation.

There are several openings for attendees and facilitators, and volunteers are needed in many areas. If you are interested contact Peggy Pool. One of several keynote speakers will be State Representative Alicia Thomas-Morgan. You won't want to miss this!
New Books!


This new volume collects the GCTM State Mathematics Tournaments (written tests, individual ciphering, and pair ciphering) from the years 1998 through 2004. Full solutions to all problems are provided, and, in some cases, more than one solution is provided. Also included is a topic index so problem solvers may find any problem by topic.

These books provide a crash course in problem solving and preparation for anyone invited to the state tournament, or for anyone that enjoys good problems. These books are a must for any Math Team sponsor!

To purchase one of these books, simply click the corresponding link below:

Volume 4 (print version)
Volume 5 (print version)
Volume 5 (pdf version)  ALSO NEW!

(Note: all proceeds from the sales of these books goes directly to GCTM and funds the State Math Tournament and ARML team.)

“So where are volume 1, 2, and 3?” The answer is simple: they are not written... yet! You see, GCTM’s own archive of State Tournament is lacking. As soon as it is complete, other volumes will appear. We plan on offering the following books in the future:

Volume 1 (1977-1983)
Volume 2 (1984-1990)

If you have old state tournaments (with ciphering) lying around in a box or file, please let us know! The years we require are 1977, 1978, 1979, 1980, 1981, and the ciphering from 1984. Your contribution will be acknowledged in the respective volume. Thanks!
Congratulations to the Rockdale Magnet School

The Georgia Department of Education (GaDOE) recently recognized the Rockdale Magnet School for Science and Technology as Georgia's first high school Science, Technology, Engineering, and Mathematics (STEM) certified school.

"To obtain STEM certification, the school had to submit an application showing that the school meets rigorous criteria, such as evidence of teacher collaboration, business/industry partnerships, high levels of math and science instruction, and an integrated STEM curriculum that is project based. A team from the Georgia Department of Education visited the school to observe evidence that STEM instruction was occurring. Highlights of the Rockdale Magnet School's application included the requirement that all students must complete four years of scientific research to graduate. Students enter their projects in any number of STEM competitions, challenges, and science and engineering fairs during their four years at the school. Additionally, most students participate in an intense internship with business partners that allow them to explore career options. The results have paid off for this year's seniors who collectively received over five million dollars in college scholarships. The school's average ACT score was 29 out of a possible 36, and the average SAT score was 1907 out of a possible 2400."

Membership Report

Your membership record has a new field. Because many schools block email from our website, we would encourage you to add an alternate email address to your record on the website, if you have had some issues receiving information from GCTM. We try not to fill your mailbox with emails, but would like to insure that you receive any important notices we send your way!

A special note to STUDENT Members

This is the time of year that our Student Members are in transition as you finish an academic year. We don't want to lose touch with you so please take a few moments to visit your membership record on our website. Renew your student membership if you are continuing your studies. If you are relocating, please update your mailing and email addresses, and future worksite information. Additionally, if you are beginning your professional career and your student status is ending, please join us as an Annual Member. Dues are a mere $20 and you will find GCTM to have a significant influence on your teaching career.

Membership Director

Susan Craig

GCTM Has a New Office and Phone Number

PO Box 5865
Augusta, GA 30916
1-855-ASK-GCTM
The Kennesaw State University Mathematics Competition is an annual mathematics contest open to all Georgia high school students. Partial funding for the actual competition and the awards reception came from a GCTM Special Projects Grant for $2,150.

Unlike contests sponsored by other Georgia Universities, the Kennesaw State University Mathematics Competition is administered to students at their own high school during or after the school day at no cost. In 2011-2012 almost 2000 students from 130 public and private high schools and homeschool groups competed in Round One. Students whose Round One scores placed them in the top 10% statewide were invited to compete in Round Two. Round Two consists of five problems each requiring rigorous proof. The students’ proofs are scored by a committee of Kennesaw State University mathematics faculty members and graduate students.

The high school students with the top 34 composite scores from both rounds of the competition were honored at a luncheon reception on the KSU campus on April 21.

EDWARD PARK (Walton HS) had the highest composite score in the state and received a plaque and a $100 award. CLAUS ZHENG (Walton HS) and GIL GOLDSHLAGER (Walton High School) placed second and third and received plaques and awards of $50 and $25, respectively.

The 31 students listed below (in alphabetical order) received plaques of honorable mention.

Information and registration materials for the 2012-2013 competition will be mailed to the Mathematics Department Chair at each Georgia high school in early September. If you would like more information about the competition, please visit the contest website http://math.kennesaw.edu/~ckoppelm.

Sample problems from this year’s competition are on the next page.

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<tr>
<th>Monica Agrawal</th>
<th>Chamblee High School</th>
<th>Wayne Lu</th>
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<td>Keiko Mori</td>
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<td>The Westminster Schools</td>
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<td>Nathan Corbin</td>
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<td>Jiyang Xie</td>
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<tr>
<td>Michael Liang</td>
<td>Northview High School</td>
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</table>
Sample Problems from this Year's Competition

Part I

1. Call an integer "cwazy" if it is divisible by each of its digits. For example, 36 is "cwazy" because it is divisible by both 3 and 6. However, 28 and 71 are not "cwazy". How many "cwazy" integers are there between 10 and 100?

   (A) 11  (B) 12  (C) 13  (D) 14  (E) 15

2. In triangle ABC, AB = 3, BC = 5, and AC = 7. The angle bisectors of the two smallest angles of the triangle meet at point P. Compute the ratio of the measure of ∠APC to the measure of ∠B.

   (A) 11/10  (B) 10/9  (C) 8/7  (D) 7/6  (E) 5/4

3. For all real numbers x, the function f(x) satisfies 2f(x) + f(1-x) = x^2. What is the value of f(5)?

   (A) 15/4  (B) 21/5  (C) 25/3  (D) 27/4  (E) 34/3

4. Anne writes down the nine consecutive integers from -6 to 6. She then performs a series of operations. In each operation she identifies two numbers that differ by two, decreases the larger by one, and increases the smaller by one so that the two numbers are now equal. After a while she has thirteen zeros left and stops. How many operations did she perform?

   (A) 78  (B) 84  (C) 91  (D) 95  (E) 99

Part II

A pair-square set of size n is a set of n distinct positive integers such that each pair of integers in the set has a sum which is the square of an integer. For example, the set \{15, 34, 66\} is a pair-square set of size 3 because 15 + 34 = 72, 34 + 66 = 102, and 15 + 66 = 92.

a. Find a pair-square set of size 3 containing the number 2012.

b. Prove that any pair-square set of size 3 contains at most one odd number.
The GCTM Middle School Math Tournament was held at Thomson Middle School in Centerville GA on April 21, 2012. Middle schools across the state were invited to register up to eight students to compete. The tournament consisted of a 30 question multiple-choice test with a 45-minute time limit; 10 individual ciphering problems, each problem with a two-minute time limit; 3 rounds of four pair ciphering problems (in which students from a school formed teams of two), each round with a four-minute time limit; and a four-person team "power question," in which the team solves a complex problem with a 10-minute time limit.

The tournament is designed to challenge middle school students and to reinforce classroom skill. However, we also make sure the students have fun! At the conclusion of the tournament, students participate in a fun-only "Frightnin' Lightnin'" Round, where students must be quick on the draw to answer math problems posed orally. The winners of this round get candy!

Trophies went to the top five teams and the top ten individuals. The top teams are below.

TOP TEAMS:
1. Dodgen Middle School, Marietta
2. Greater Atlanta Christian School, Norcross
3. First Presbyterian Day School, Macon
4. Landmark Christian School, Fairburn
5. Riverside Middle School, Evans

Sixty-seven students from thirteen schools participated. Sponsors that are members of GCTM only had to pay a $10 registration fee or submit five multiple-choice questions for possible inclusion in a future tournament. The next GCTM middle school tournament is scheduled for April 20, 2013.

Below are some sample problems from the tournament.

Test Problem #8: I have a total of fourteen coins in my pocket, consisting of only dimes and quarters. The total value of the coins is $1.85. How many dimes do I have in my pocket?

a) 1  
b) 3  
c) 6  
d) 8  
e) 11

Test Problem #23: In the game of chess, a knight's move is 2 units in one direction and 1 unit in a perpendicular direction. If a knight is placed at the origin and makes two moves, which of the following could not be it location?

a) (0, 0)  
b) (3, 1)  
c) (-3, -1)  
d) (4, 2)  
e) (6, 5)

Individual Ciphering #4: Jason wants to make at least an 80% on his next test. If there are 75 questions on his next test, and Jason answers all of them, then what is the greatest number of questions he can get wrong?

Pair Ciphering #3-1: How many two-digit numbers are greater than the sum of their digits?

Answers: E; E; 15; 90
GCTM State Math Tournament News

by Chuck Garner, VP for Competitions

The 36th annual GCTM State Math Tournament was held at Macon State College in Macon, Georgia on April 28. Schools are invited to the state tournament based on their performance on previous Georgia tournaments throughout the 2011-2012 school year. This year, 28 invited schools attended the state tournament. Four students are selected to represent each school. Twenty-seven individuals were also invited to try-out for the state-wide Georgia ARML team, making a total of 140 participants.

The tournament consisted of a very challenging written test of 45 multiple-choice questions and 5 free-response questions with a 90-minute time limit; 10 individual ciphering problems, each problem with a 2-minute time limit; and a team round. The team round is a new addition this year, and replaces the former pair ciphering. The team round consisted of 12 problems for each team to solve while working together within eight minutes.

Once again, the student with the best improvement at the state tournament from last year was given the Steve Sigur Award for Most Improved Performance. This award, named in honor of the great mathematician, teacher, and mentor Steve Sigur, went to Jason Mitchell of Rockdale Magnet School. Each participant and their school sponsor was given a 2012 State Tournament T-shirt.

Here are the top five teams and the top 15 individuals:

TOP TEAMS:
1. Northview High School
2. Rockdale Magnet School
3. Walton High School
4. Wheeler High School
5. Chamblee Charter High School

TOP INDIVIDUALS:
1. Claus Zheng, Walton High School
2. Sitan Chen, Northview High School
3. Mike Wang, Gwinnett School of Math, Science, and Technology
4. Heeyoon Kim, Rockdale Magnet School
5. Michael Liang, Northview High School
6. Monica Agrawal, Chamblee Charter High School
7. Jeremy Rachels, Rockdale Magnet School
8. Anchen Yao, Parkview High School
9. Jason Mitchell, Rockdale Magnet School
10. Jiyang Xie, Roswell High School
11. Sina Monfared, Wheeler High School
12. Oxford Wang, Northview High School
13. Tony Qian, Northview High School
14. Ben Chen, Campbell High School
15. David Xing, Northview High School

An item analysis of the competition problems was completed for the first time at the state tournament. The responses analyzed included the 45 multiple-choice problems on the written test and the 10 problems from the individual ciphering round. Before we discuss what the item analysis revealed, some background information would be useful. The problems on the written test are designed to increase in difficulty. Thus, theoretically, problem 1 is the easiest multiple-choice problem and problem 45 the most difficult problem on the test. Those problems begin here and continue on the next page.

Test Problem #1: Find the difference between the largest and smallest solutions to \(|3x - 5| \leq 12.

a) \frac{14}{5}
b) 3
c) \frac{10}{3}
d) \frac{14}{3}
e) 8
Test Problem #45: Let $G(1, 0, -3)$, $C(-2, 3, -2)$, and $T(4, 2, -4)$ be points in space. Let $M$ be the point such that $GCTM$ is a parallelogram. Compute the area of $GCTM$.

a) $2\sqrt{62}$
b) $5\sqrt{10}$
c) 16
d) $4\sqrt{65}$
e) $12\sqrt{2}$

Problem 3 is a simple order of operations problem disguised as a multivariable function. Exactly 132 of the 140 participants gave the correct answer, E. Problem 35 is a system of equations. Squaring both equations, adding them together, and then using angle sum identity for sine reveals that $A + B$ is either 30 degrees or 150 degrees. Since having $A + B$ as 30 degrees would not result in a triangle, the answer is E, 150 degrees. Only 7 students responded correctly.

As for the ciphering, there is no particular order of difficulty for the questions, so it always interesting to see which problems are answered correctly and quickly. The easiest ciphering problem, judged by the fact that 101 participants gave the correct answer, is the following. (Recall that each of the problems below should be answered in less than two minutes, without a calculator.)

Ciphering Problem #1: Compute the sum of the cubes of the integers in the interval $[-15, 16]$. Certainly, the cube of a negative number is negative, so all cubes cancel except for $16^3$, which is 4,096. The most difficult problem, with only 2 students giving the correct answer of $4\sqrt{41}$, was the following.

Ciphering Problem #9: A hyperbola with asymptotes $5x - 4y = -9$ and $5x + 4y = 39$ has one vertex at $(3, 16)$. Find the distance between its foci.

If anything can be gleaned from this item analysis, it is perhaps that conic sections and trigonometric equations are weak spots for our state's best students.
For bios of many of the speakers, refer to the Spring 2012 issue of eREFLECTIONS.

**Wednesday**

**Tim Kanold, former NCSM President (KEYNOTE)**
As a group, we need to focus on the process of learning and developing deep student understanding of the standards. This presentation will focus on five paradigm shifts to prepare every student and teacher for the successful implementation of the Common Core in mathematics and for the general improvement of mathematics learning for K-12 students.

**Thursday**

**Larry Lesser, Mathemusician (KEYNOTE)**
As a Mathemusician, Lesser brings his guitar to classrooms, facilitating explorations by using music. He performs raps and musical parodies, creatively adapting popular lyrics toward math topics such as infinity, pi, problem solving, graphing functions, as well as even more real world applications such as understanding the lottery.

**Sarah DeLeeuw, NCTM Illuminations**
Make your classroom come alive with games and activities. Make your classroom come alive with games and activities. This presentation will show free activities and games that are available through NCTM that promote the Common Core State Standards for Mathematical Practice.

**Seth Caplan, Producer of Flatland and Sphereland**
This presentation will give exclusive clips and behind-the-scenes insight from the new film, *Flatland 2: Sphereland*. Join the speaker for this sneak peek into the mathematics of making the new animated film and catch exclusive clips from the movie featuring math lessons.

**Donna Long, Houghton Mifflin**
*Ready to Inspire*
Response to Intervention requires thoughtful planning to ensure that all students are given opportunities to learn and succeed in the classroom. This interactive workshop will include hands-on activities and games with references to children’s literature that will make you ready to inspire your students in the classroom!
**Julie Dixon**  
According to the CCSS, students should be engaged in the Standards for Mathematical Practice. Explore videos that keep students engaged in these standards in action. Discuss meaningful tasks that support this engagement.

**Stuart Murphy, Children's Book Author**  
Join Stuart J. Murphy, the author of the award-winning MathStart series, as he takes you on a journey through the world of literature and math, and shows you how together they can create an equation for success. This session will explore how stories about the kinds of things that interest children can engage students and make math relevant to their lives.

**Steve Weimar, MathForum**  
*Notice and Wonder: Engaging Students and Developing Mathematical Thinking (K-12)*  
This session is an introduction to an approach that supports a culture of problem solving, engaging reluctant learners and challenging the high performing student.  
*Using Technology to Increase Conceptual Understanding in Algebra and Geometry (Grades 6 - 12)*  
We'll explore interactive applets that let students talk about mathematical situations, and develop conceptual understandings of triangle properties, linear equations, systems of equations, and factoring trinomials.

**Sphereland, the movie**  
View *Sphereland* from the creators of *Flatland: The Movie*. This movie takes you on an adventure beyond the third dimension.

"Set on the eve of Flatland's first mission into their 'outer-space' the story presents the intriguing mysteries of triangles with angle sums greater than 180 degrees and flipping into dimensions that are literally out of this world. Full of action, humor and lessons, "Sphereland" will delight and educate audiences of all ages." [http://www.spherelandthemovie.com/video.html](http://www.spherelandthemovie.com/video.html)

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**Skip Fennell, Former NCTM President**  
*(KEYNOTE)*  
*Trends, Issues and Challenges in Mathematics Teaching and Learning (K-12)*  
What's going on? What's happening in mathematics teaching and learning and how it impacts you from afar or maybe every day! This session is Common Core and more! What's important? What is it about this subject of ours? Let's figure this out!

**Jane Barnard, retired from Armstrong State University, Consultant, Master Teacher**  
If you are a new teacher or a teacher who has never heard Jane before, do not miss hearing Jane Barnard. You will be a better teacher.

**Brad Findell**  
*Formative Assessment Strategies for Implementing the Common Core State Standards for Mathematics (Grades K - 12)*  
*Designing Secondary Mathematics Programs for All Students (Secondary)*
Chris Franklin, Senior Lecturer/Undergraduate Coordinator and Lothar Tresp Honoratus Honors Professor

Important Themes at the Forefront of Developing Sound Statistical Reasoning (Grades 6 - 12)

This session will focus on the important themes for developing sound statistical reasoning and the learning progression of these themes through the different grade levels. Everyone will actively participate with others in experiencing the learning progression of statistical concepts from the Common Core.

Irina Lyublinskaya, Professor of mathematics and science education at the College of Staten Island, City University of New York

Multiple Representations - Expressions and Equations (Grades 6 - 8)

This session will focus on development of conceptual understanding of patterns, relationships, and algebraic thinking, important elements of Common Core Standards. Take back activities for working with algebraic expressions and equations that will help your students to develop the thinking and reasoning processes they need for success in algebra.

Multiple Representations - Functions and Relations (Grades 9 - 12)

Functions are at the heart of high school mathematics. Do your students really understand what a function is? This session will focus on tasks that promote CCSS Mathematical Practices in order to develop understanding of the concept of function, including ideas of domain and range, composition of functions, and inverse functions. Take back to your students interesting problems and questions, assessments, and activities to test and develop their understanding of functions.

Donna Long

Grab and Go: Literature, Games, and Centers

This workshop will look at differentiated instruction and what this means for the elementary math classroom. Participants will receive an extensive handout of ideas for literature, games, and activities for ready-made centers with reference to children's literature.

Stuart Murphy, Children's Book Author

In this session, Stuart J. Murphy will demonstrate how visual learning strategies can be used to help students in the study of mathematics. Visual models and illustrations can translate difficult new concepts into a visual language that students can readily understand.

Connections will be made between verbal, visual and numerical representations, and how these can come together to provide students with opportunities to express their ideas, reinforce their understandings, and explore their creativity about math.
Georgia ARML Team Earns Sixth Place in Nation!

by Chuck Garner, VP for Competitions

The 37th annual American Regions Mathematics League (ARML) tournament took place at UGA on Saturday, June 2. The Georgia ARML "A1" team finished 6th in the nation in the A division. This marks the 23rd consecutive year that the Georgia team finished in the top 10% at the "world series" of math team tournaments. Each member of the 6th place team earned plaques and Texas Instruments software.

Held simultaneously at four sites around the nation (Pennsylvania State University, University of Nevada at Las Vegas, University of Iowa, and University of Georgia), this competition attracted 140 teams comprising over 2000 students from all over the U.S. as well as Canada, China, Macau, Singapore, and the Philippines. Any geographically contiguous region may enter as many 15-person teams as it likes, whether that region is as small as a school district or as large as a state, as long as regions do not overlap. Georgia fields four teams of 15 students (plus an alternate, for a total of 61 students). Students are selected based on results from the state tournament, AMC scores, AIME scores, and winning scores at other Georgia tournaments. The Georgia A1 and A2 teams are made up of experienced ARML participants, while the Georgia A3 and B1 teams are considered "training" teams made up of promising newcomers to ARML.

The ARML tournament brings together the nation's finest students, where they meet, compete, and socialize, forming friendships and sharpening their mathematical skills. The contest is written for high school students, although some highly-talented middle school students attend each year.

The tournament consists of four rounds. The Team Round is first, in which the 15 teammates have 20 minutes to solve 10 problems. Next is the Power Round, in which the team has 60 minutes to write proofs to complex, multi-part problems. Next is the only round that is not team-oriented, appropriately called the Individual Round. For this round each student solves 10 problems independently. However, the students receive the problems two-at-a-time with a time limit of 10 minutes per pair of problems. After a lunch break is the final round, the Relay Round. The 15 teammates form five relay teams of three each, where one person's answer is used in the next person's problem.

National sponsorship of ARML is mainly provided by the D. E. Shaw Group, an investment and technology development firm. Other national sponsors include the American Mathematical Society, Art of Problem Solving, Key Curriculum Press, Math League, Mu Alpha Theta, Texas Instruments, and...
Georgia ARML Team Earns Sixth Place in Nation! cont.

Wolfram Research. Locally, sponsorship of the Georgia ARML teams is mainly provided by GCTM. Coaches of this year's Georgia ARML team were Tom Fulton (iLearn, Inc.), Chuck Garner (Rockdale Magnet School), Debbie Poss (Lassiter High School), Carol Sikes (South Forsyth High School), and Head Coach Don Slater (Lassiter High School). Joining the coaching staff this year were seven former Georgia ARML participants: Jacob Rooney, recent graduate of UGA; Miles Dillon Edwards, currently at Indiana University; Allen Park, currently at MIT, Harrison Brown, currently at the University of Alabama, and Jonathan Johnson, Bhau Kumar, and Santhosh Karnik, all three currently students at Georgia Tech.

The members of the outstanding 2012 Georgia ARML team are listed with their school and grade.

<table>
<thead>
<tr>
<th>Name</th>
<th>School</th>
<th>Grade</th>
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Each of us is thinking something like this: how can I make the most of my summer! It is so short! I want to play, get ready for next year, play, do some professional development, play, plan for whatever I'm going to teach next year, play, etc! I want to do it all!

So let's get organized. Let's start making a bucket list of things to do to be sure we have accomplished what we want to. Here are some suggestions by category.

**What should I do this summer? by Cheryl Hughes, Editor**

**Beginning teacher**
Find a mentor from another school - even someone online only. Just ask and we'll point you in the right direction.

Plan for the first semester - know your content and how it is taught in your textbooks.

Watch videos of others teaching. You'll get inspired!

**Teacher who knows exactly what they will be teaching next year**
Organize your files by topic or unit.

Find videos, animations, or video games that will reinforce skills you will teach.

Set a goal to select one new piece of technology per unit or chapter.

**Teacher who isn't sure what they will be teaching next year**
Take an online course in your general field.

Investigate new media like [www.toonboom.com](http://www.toonboom.com)

Peruse the offerings of sites like [www.pbs.org/teacherline](http://www.pbs.org/teacherline) and [www.revolutionk12.com](http://www.revolutionk12.com)

Make notes about what you can find on these sites that you might use in the future.

**Veteran teacher who is just weary**
Try something different -

a. find a team/teacher in another location and arrange to Skype lessons together

b. Investigate a new technology and plan to use it several times this next year

Mentor a new teacher.

Write an article for eREFLECTIONS about something you do in your classroom that works!

Take time to prepare for next year, as much as you can. When school starts you will be glad you did. But also take time this summer to do several things just for yourself. Have some fun!

Email me and let me know what you do, what gems you find, and how you are planning for the new year.

Happy Summer Vacation!