



## TexMATYC News

Texas Mathematical Association of Two-Year Colleges

Summer 2012

### President's Message

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Greetings Colleagues,

It seems impossible that we are almost through the 2011-2012 school year and that we are embarking toward the end of our two years of service. Thank you TexMATYC executive board, members, and friends for those two productive years. Because of your passion and dedication to mathematics education, the talents of your students continue to make us proud in many areas of this field.



TexMATYC treasurer, Habib Far from Lone Star College, reported that our memberships revenues continue to grow. Thanks to all our campus representatives, TexMATYC now has 208 members representing more than 50 different colleges and universities; and most of all, thank you TexMATYC members and friends for your support and commitment to your state organization. Habib, your dedicated work was much appreciated.

Thanks to TexMATYC secretary and newsletter editor, Heather Gamber from Lone Star College. The TexMATYC newsletter reaches more members because we now publish it three times a year. Thank

you Heather for all your genuine contribution to TexMATYC.

Easy website access and features that we sometimes take for granted requires hard work and dedication. I am referring to the excellent work provided by our webmaster Edward Bock of Collin College. Thank you Ed for creating and continuously maintaining this meaningful and easy to navigate website, [www.texmatyc.org](http://www.texmatyc.org).

Good luck to the following slate of nominees that was recently approved by the nominating committee:

For president elect: Cynthia Martinez, Temple College  
For treasurer: Habib Far, Lone Star College  
For secretary: Heather Gamber, Lone Star College

The election will be held May 5 – May 20, and all current members of TexMATYC are invited to submit a ballot posted at [www.texmatyc.org](http://www.texmatyc.org). A new executive board will take over on June 1st and will be presided by Sharon Sledge from San Jacinto College.

Last year, we had the Best AMATYC conference in our Lone Star State. This success was mainly due to our state delegate Honey Kirk of Palo Alto College. Thank you Honey for organizing an outstanding conference.

Also, this year we had a remarkable TCCTA/TexMATYC conference. This success was mainly due to our president elect and TCCTA Math section chair, Sharon Sledge. During this conference, TexMATYC members eliminated the TCCTA Math section chair and delegated planning and organizing

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all future TCCTA/TexMATYC conferences to the TexMATYC executive board.

Before I conclude my address, I want to thank Paula Wilhite from Northeast Texas Community College for her unconditional support and contributions to TexMATYC. For the past six years, Paula served as vice-president, president, and now immediate past president of TexMATYC. Her passion for Mathematics education shined throughout the memory lanes of TexMATYC. Thank you Paula for all the good work you engraved in TexMATYC.

Thank you for being a valued member of your Texas Mathematical Association of Two-Year Colleges.

**Raja Khoury**, Collin College  
TexMATYC President

# Top 5 Reasons to Join AMATYC

*by Kathryn Kozak, VP of the Southwest Region*

There are many reasons to join the American Mathematical Association of Two-Year Colleges (AMATYC). Here is a list of five of the top reasons.

## 5. Committee Membership

There are many committees in AMATYC where discussions happen around different aspects of teaching mathematics. The committees range from Developmental Mathematics through to Mathematics Intensive. The AMATYC committees are involved in writing position statements, planning themed sessions, and hosting pre-conference sessions. You are encouraged to join a committee, and be part of the discussion on how best to teach mathematics at two-year colleges. You can attend a committee meeting at the 2012 AMATYC Annual Conference in Jacksonville, FL, from November 8<sup>th</sup> through the 11<sup>th</sup>. You can also find out more about committees at [www.amatyc.org](http://www.amatyc.org).

## 4. Leadership

There are many leadership positions in AMATYC. They range from president of the organization to committee chairs. In order to be one of these important leaders, you must be a member. A benefit of many of these leaders is the ability to attend all of the AMATYC Annual Conferences. Don't forget the 2012 AMATYC Annual Conference in Jacksonville, FL, from November 8<sup>th</sup> through the 11<sup>th</sup>. Find out more at [www.amatyc.org](http://www.amatyc.org).

## 3. Webinars

If you want to know more about teaching mathematics and you can't wait for the Annual Conference, there are several webinars offered throughout the year. Attendance is free for all AMATYC members, and notice is sent to AMATYC members before others see the information.

## 2. Conference Pre-session

As an AMATYC member, you are notified before all other mathematics instructors about any conference pre-sessions. Pre-sessions usually fill up very fast, so if you don't register as soon as registration opens, you may not get to attend. There is a pre-session planned on statistics prior to the 2012 AMATYC Annual Conference in Jacksonville, FL, on November 7<sup>th</sup>. Attendance at this pre-session is free.

## 1. AMATYC Annual Conference

Of course, there is also the AMATYC Annual Conference. The next conference is in Jacksonville, FL, from November 8<sup>th</sup> through the 11<sup>th</sup>. AMATYC members receive a reduced conference fee.

As you can see, there are many good reasons to join AMATYC. Join today. Go to [www.amatyc.org](http://www.amatyc.org) to join.



# TC Guest Lecturer Tries to Take the Fear out of Math

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*By Janice Gibbs, Telegram staff writer, Feb 17, 2012*

Math offers a way of looking at the world.

That was the premise of math professor Edward Burger, guest lecturer at Temple College.

On Thursday, Burger, professor of mathematics at Williams College and vice provost for Strategic Education Initiatives at Baylor University, was at TC presenting a lecture on “Monkeys, Mathematics and Mischief: What are the Lifelong Lessons for education.”

Every Discipline, even math, provides lessons that can be used long after those complex formulas learned by rote have long been forgotten, Burger said.

His goal was to convince those who are phobic about math that the discipline should not be feared and its theories have use outside the classroom.

“In advance math you prove theorems,” he said. “Suppose you have a bunch of monkeys and you give these monkeys a keyboard and have them bash away randomly on their keyboards.”

The question Burger posed: In time, will one of these monkeys accidentally produce the play “Hamlet” with no typos?

“The answer is yes, that will happen if you wait long enough,” he said.

The proof of the theorem is not all that important, it’s all about the process, Burger said.

The first question, he asked, is how you prove that one of those monkeys, in spite of their lousy typing skills, will eventually reproduce Hamlet.

“This is the first life lesson,” Burger said. “Whenever you’re face with a daunting, difficult, impossible seeming challenge, in math, or in life, don’t do it. Immediately admit defeat.”

Think like a mathematician – come up with easier questions, he said.

“Use that answer as insight to ask another question for another insight,” Burger said. “Over time, paradoxically, the original daunting challenge gets eaten away until it becomes common sense.”

The process Burger used to “prove” a monkey could in due course produce “Hamlet,” began simply.

Edit the play’s thousands of letters and symbols to one number – 4 – and using a six sided die determine the number of throws it would take to roll a 4.

The numbers were doubles – 4 and 2 – and the die was thrown until the 4 and 2 were rolled consecutively.

Eventually, the numbers will come up in order, even if it doesn’t happen immediately, Burger said.

“To the mathematical model that’s the end of the proof,” he said. “Hamlet is just a long list of letters and symbols strung together in a particular order.”

To determine the chances of one of the monkeys being successful would require a die with many sides or a roulette wheel divided into many pockets, each representing one of the symbols or letters in the play.

Using 70 as the number representing all of the different symbols and letters, it would take an average of 70 throws of a 70-sided die to roll a capital H. The

chances of throwing an “H” followed by an “a” is 1 in 4,900.

“To get the entire play you just have to wait long enough,” Burger said.

To speed up the process would require a lot of primates and even that would take an inordinate amount of time.

It would take a million monkeys, making one key stroke per second, millions of years, for one of the monkeys to accidentally produce the first sentence in Hamlet’s soliloquy – “To be, or not to be, that is the question.” The actual number of years is a 1, followed by 60 zeros.

The point of the exercise, he said, was to consider a different way of thinking. Taking something simple, building on it until what had seemed complex becomes instinctive.

“That’s a process of thinking that you can use on a history paper or sociology paper or a math paper,” Burger said. “By thinking through an issue, by looking at simple things first, understanding them deeply, by asking what comes next, by looking for a pattern and a flow of ideas, you will be putting yourself in a position of becoming a producer of ideas rather than being a consumer of other people’s ideas.”

## Calculus Contest Winners

The 4<sup>th</sup>-Annual Calculus Contest was sponsored by Lone Star College System Mathematics Departments on April 12, 2012 at 3 pm. The event was hosted by Lone Star College-Montgomery. Professors Ray Abbasi, Scott Caldwell, Scott Daugherty, Bill Dunn, Jeff Groah, and Maureen Loiacano conducted the event.

**Contest Rules:** No calculators, students did not have to show work, rounds were timed and students were eliminated after the second wrong answer. The contest was divided into two divisions: Calculus I and Calculus II & Higher. Cash prizes were awarded for 1st, 2nd and 3rd place in each category.

**Calculus I Division:** Open to students who have never enrolled in Calculus II. Topics may include limits of functions of one variable, limits of difference quotients, limit properties, derivative rules, implicit differentiation, definite integrals, limits of Riemann Sums, and the Fundamental Theorems of Calculus. Algebraic and trigonometric functions will be considered.

**Calculus II and Higher Division:** Open to all students. Topics may include limits of functions of one variable, limits of difference quotients, L’Hopital’s Rule, limit properties, limits of sequences, derivative rules, definite integrals, limits of Riemann Sums, infinite series, applications of integration, and the Fundamental Theorems of Calculus. Algebraic, trigonometric, inverse trigonometric, exponential, and logarithmic functions will be considered. Thirty students participated.

The winners were:

### Calculus I

- First Place- Diego Oliveros
- Second Place- Alexandra Dueitt
- Third Place- Olise Amudo

### Calculus II and Higher

- First Place- Tien, Bui
- Second Place- Giancarlo Hernandez
- Third Place- Nguyen Nguyen





# TCCTA/TexMATYC Conference Photos

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March 1-3 2012, Frisco, Texas

**STATWAY: Thomas Connolly, Mary Parker and Teri Westbrook**



**Habib Far, Denise Lujan**



**"What's the state up to?" Cynthia Martinez, Susanne Morales-Vale**



**Habib Far, Sue Sabrio**



Honey Kirk, Cynthia Young



## Student Math League Competition

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Southwest 2011-2012 winner of the Student Math League competition.

Raja Khoury with winner Darien Lee of Collin College.

“Math and Music” Chip Galloway



### TexMATYC Executive Board

**Raja Khoury**

President  
Collin College  
[rkhoury@texmatyc.org](mailto:rkhoury@texmatyc.org)

**Sharon Sledge**

President Elect  
Northeast Texas CC  
[Sharon.Sledge@sjcd.edu](mailto:Sharon.Sledge@sjcd.edu)

**Paula Wilhite**

Immediate Past President  
Northeast Texas CC  
[pwilhite@ntcc.edu](mailto:pwilhite@ntcc.edu)

**Heather Gamber**

Secretary, Newsletter  
Editor  
LSC-CyFair  
[heather.a.gamber@lonestar.edu](mailto:heather.a.gamber@lonestar.edu)

**Habib Far**

Treasurer  
LSC-Montgomery  
[habib.y.far@lonestar.edu](mailto:habib.y.far@lonestar.edu)

**Honey Kirk**

AMATYC Delegate  
Palo Alto College  
[hkirk@alamo.edu](mailto:hkirk@alamo.edu)

**Kathryn Kozak**

Coconino Community College  
Tulsa Community College  
[kathryn.kozak@coconino.edu](mailto:kathryn.kozak@coconino.edu)

**Ed Bock**

Webmaster  
Collin College  
[Ebock@texmatyc.org](mailto:Ebock@texmatyc.org)

## Joke of the Month

We owe it to our students to teach them how to write a proof.

Proof that a lazy dog is a piece of paper:

A lazy dog is a slow pup.

A slope up is an inclined plane.

An ink-lined plane is a piece of paper.

QED.



## Got News?

If you know of any exciting news in mathematics, have it published in your TexMATYC newsletter. Submit articles to Heather Gamber at [heather.a.gamber@lonestar.edu](mailto:heather.a.gamber@lonestar.edu).

Visit us at [www.texmatyc.org](http://www.texmatyc.org)