



# TexMATYC News

Texas Mathematical Association of Two-Year Colleges  
Affiliate to the American Mathematical Association of Two-Year Colleges

Spring 2007

[www.texmatyc.org](http://www.texmatyc.org)

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## 2007 Southwest Regional AMATYC Conference

*Linda Zientek,*  
**Conference Board Member**



The 2007 AMATYC Southwest Regional Conference will be held Friday and Saturday June 15<sup>th</sup> and 16<sup>th</sup> in San Antonio, Texas at San Antonio College. Invited speakers include Dr. [Joseph Gallian](#) from the **University of Minnesota Duluth** and Dr. [Gloria White](#) from the **Charles A. Dana Center**.

We encourage you to submit a presentation proposal and to share your ideas with your colleagues. Presentation proposals must be submitted by March 27. Registration, proposal forms and housing information are available on the [conference homepage](#).

The conference committee is comprised of the immediate-past presidents of the four state affiliates in the Southwest Region. If you are interested in assisting with the conference, please e-mail me at [lzientek@blinn.edu](mailto:lzientek@blinn.edu). If you are interested in serving or helping with the organization, please feel free to contact a board member.

We look forward to seeing you at the conference.

## Welcome Charles Odion

### Webmaster

Charles has joined the TexMATYC board as Webmaster. He is an Instructor of Mathematics at Houston CC-Southwest.



## President's Message      Mel Griffin, Texas A&M University



Greetings Colleagues,

Both the Texas Higher Education Coordinating Board (THECB) and the Texas Education Agency (TEA) are now implementing House Bill 1 that passed during the third-called special session of the 2005 Texas Legislature. As you are aware, the implementation involves community colleges in three important venues: 1) vertical teams to prepare standards for college readiness; 2) dual-credit or concurrent enrollment classes for high school students; and 3) course redesign of several entry-level courses. All of these topics have been discussed at the national level for several years and have invoked various degrees of passion, protests, praise, and condemnation.

P-16 Initiatives have become commonplace in the last five years with the goal of settling the differences and bridging the disconnects between the mathematics education in public schools and mathematics expectations for entering college students. I have been intimately involved in these initiatives for the past six years through my work with the Texas A&M University System. From the perspective of working in many of the public schools the last six years, teaching mathematics in the community college for 25 years, and teaching at an A&M university campus, I offer the following observations of perceived disconnects that must be bridged:

- The use and application of graphing calculators is vastly different in many public schools and many institutions of higher education, i.e., public schools are required by statute to furnish a graphing calculator for each high school student, yet many institutions of higher education do not allow graphing calculators in freshman courses;
- Many public school mathematics programs use a worksheet curriculum based on the Texas Assessment of Knowledge and Skills (TAKS) rather than a textbook; consequently, many students enter higher education with no experience utilizing a written resource;
- Students in public schools are required to pass the TAKS, which is a state-mandated, multiple-choice test focusing on conceptual understanding, rather than procedural fluency and algorithmic symbolic manipulation such as most of our institutions of higher education expect;
- Many public schools require no mathematics homework while most colleges and universities require homework throughout all courses;

The written curriculum from high school to college is closely aligned while many disconnects are evident concerning assessment and instruction of the written curriculum.

This brief discussion is not intended to point fingers or assign blame at any level. The purpose is to bring awareness to the issues so that dialogue and collaboration will become commonplace and our community college mathematics community can assume a rightful place in the implementation of House Bill 1.

Regardless of our personal views, we must join hands as a mathematics community to afford the best mathematics education possible for all students. I encourage you to write letters to the editor concerning these issues for the next publication of your TexMATYC newsletter.

Mel Griffin

## TCCTA/TexMATYC Conference

Austin, Feb 23-24 2007

The TexMATYC conference, held in conjunction with the TCCTA convention, was again a great success. Handouts of many of the presentations are available, courtesy of the presenters, at the TexMATYC website: [www.TexMATYC.org](http://www.TexMATYC.org) under "meetings".

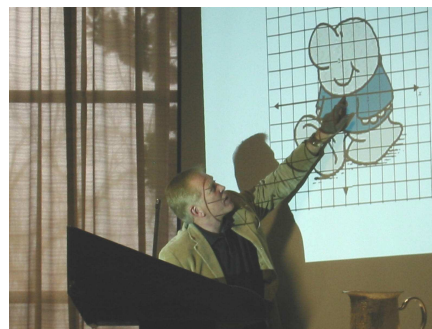
The morning session was given by Elayn Martin-Gay, Professor of Mathematics at the University of New Orleans discussing "Increasing Student Success in Mathematics".

Friday afternoon began with the a fascinating talk: "Base 2, where did it come from?" by 2006 TexMATYC Teacher Excellence Award Winner, Joanne Peeples, Professor of Mathematics, El Paso Community College. She shared a new look at Base 2 (circa 1614) and her journey to its discovery, as well as an explanation of a new way to look at Base 2.



Richelle (Rikki) Blair, President of the AMATYC and Professor of Mathematics, Lakeland Community College, Concord, Ohio spoke on "Active Student Learning: Why and How?" and told us that Net-Geners learn by doing not by reading manuals or listening to lectures. She demonstrated her message by having the participants actively involved in her talk.

Ron Larson's (Professor of Mathematics, Pennsylvania State University) presentation, "Fun With Functions" was appropriate for most levels of math. The presentation included worksheets on which the graphs of functions are used to create pictures, including cartoon characters. The worksheets vary in difficulty. The simpler ones give students the functions and ask them to draw the picture. The more difficult ones give students a picture and ask them to find functions whose graphs model the picture.



Frank Wilson, Chairman of the AMATYC Technology in Math Education Committee and Professor of Mathematics, Chandler-Gilbert Community College, Mesa, Arizona, the power of modeling real-world data sets in class in "Make it Real: Using Technology to Model Real World Data". He also demonstrated how to use sliders in Excel to change regression parameters and investigate the meaning of each parameter.

John Edgell, Professor of Mathematics Education, Texas State University, San Marcos, spoke on "Emily's Webs and Polygonal Numbers". He included many of the mathematical applications of Emily's Webs. Polygonal Numbers have been of interest for centuries as nestings of two-dimensional Platonics. Participants were guided by Dr. Edgell's constructionist approach in combination with elementary algebraic/geometric reasoning to the association between the two.

Continued on page 4

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Susan Fife, Professor of Mathematics, Houston Community College, discussed an issue that affects many of us as older instructors: "How Can a Digital Immigrant Teach Digital Natives? By Embracing Technology". She spoke of the importance of enhancing algebra instruction by incorporating technology. Her 12 year-old daughter, Julie, wrapped up the session by singing the quadratic formula.

Marisol Montemayor, Professor of Mathematics, Houston Community College, discussed "Finally! Factoring Made Easy!", which is a "No Fuss" method for factoring trinomials of the form  $ax^2+bx+c$ .

On Saturday Antonio F. Castillo, Professor of Mathematics, Palo Alto College spoke on "Visualization of a Second Degree Polynomial (Parabola) That Intersects Three Distinct R Points in the Descartes Plane (Quadratic Interpolation)."

The conference was concluded with a talk and discussion led by Don Allen, Professor of Mathematics, Texas A&M University; Linda Zientek, Instructor of Mathematics, Blinn College; and Mel Griffin, Senior Lecturer, Texas A&M University presented "College Algebra Across Texas: Survey Results". The basic questions centered on what the colleges perceived was needed by way of high school mathematics preparation. These results are in some conflict with student preparation goals of many Texas high school systems, and serve to emphasize the high need for communication between high schools and colleges on the most basic issues of mathematics curriculum.

You don't want to miss next year's TCCTA/TexMATYC conference which will be held in Dallas, February 22-23. Mark your calendars now!



## Student Math League Southwest Results 2005-2006

Teams	Score
1. Austin CC, TX	83.5
2. Pima CC, AZ	82.0
3. Tarrant County College - Northeast Campus, TX	74.0
4. Collin County CC - Spring Creek Campus, TX	62.5
5. North Harris College, TX	56.5

Individual Results
1. Vinh Dang, North Harris College, TX
2. Joo Hee Song, Pima CC, AZ
3. Chang Jang, Collin County CC - Spring Creek Campus, TX
Young Jong Chi, Austin CC, TX
5. Geeta Persad, Austin CC, TX
Kiet Hong Nguyen, Pima CC, AZ



## TexMATYC Teaching Excellence Award

San Antonio College Math professor Gerald Busald was awarded the "TexMATYC Teaching Excellence Award" at the recent TCCTA convention in Austin. The award is given annually by the Texas Mathematical Association of Two-Year Colleges to recognize outstanding classroom expertise, professional involvement, service to the mathematical community and professional development activities.

Professor Busald is the first recipient of the award from San Antonio College. As a recipient of the award, Professor Busald will also be nominated for the national AMATYC (American Mathematical Association of Two-Year Colleges) Teaching Excellence Award. Professor Busald was nominated for the award by Math professor Irma Bakenhus.

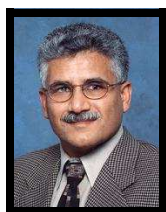
## Irene Doo Honored for Service to TexMATYC

Irene Doo, Austin CC, was awarded a life-time membership in TexMATYC for her continued service to the organization. She started in 1992 as the newsletter editor and continued until 2000. From 2000-2001 she was the president, then immediate past president until 2004, when she was once again the newsletter editor. The position was redefined in 2004 to be newsletter editor/webmaster and she continued in this position until 2006.

Since November 2003 Irene has served as AMATYC Secretary.



Mel Griffin, Gerald Busald, Irene Doo, Linda Zientek



## TexMATYC Financial Report (Ending 2/21/2007)

Description	Income	Expense
Balance (as of 8/5/06)	\$5,347.64	
Membership	\$315.00	
Website		\$20.00
Check		\$387.90
Interest	\$10.61	
Total	\$5673.25	\$407.90
Balance (as of 2/21/07)	\$5,265.35	



6/6/6

## A Perfect Day

By John J. Edgell, Jr., Ph.D. Texas State University

**Abstract**

On June 6 of this past summer, 06/06/06, or 666, and with the negative connotations in the local news, I asked my pre-service elementary teachers as to why the day might be considered a perfect day. No response. I asked the same question of the next class, which included pre-service middle school and high school teachers. Again, there was no response. Assignment: Research at least three documents and write a paper on perfect numbers. Their responses were outstanding.

The complete paper may be found on the TexMATYC website: [www.TexMATYC.org](http://www.TexMATYC.org)

**Excerpt**

Getting ready for classes, tv, coffee, paper, etc. during the morning of June 6, 2006, I picked up on folks in the news discussing the date as a form of 666 in ominous terms. It occurred to me to announce to class that today was a perfect day of a perfect month of a perfect year and to briefly engage in an informal conversation about perfect numbers to begin class. Their body language communicated that I must be off in some special world. With that response and asking directly, I learned that no one in that pre-service elementary teacher class knew anything about perfect numbers. I was somewhat disappointed and briefly conducted a monologue about perfect numbers. But, I optimistically anticipated that my class, later in the day, with pre-service middle and high school teachers would be much more responsive. Alas, that was not the situation. The later class reacted as the first. At this point I was really disappointed with these future mathematics teachers and with the system that had so poorly prepared them at this junior level of mathematical sophistication. So, I assigned them to determine at least three resources on perfect numbers, read and digest such to the point of understanding, and then to synthesize such in a paper. The students took on the challenge and most of their papers were really good. One result of the assignment was that most of the students knew more than I about perfect numbers, which I think is good. The following are some ideas I learned from browsing their papers, starting with the general idea of a perfect number, which I did know.

A perfect number,  $P$ , belongs to  $Z^+$ , such that the sum of the proper divisors of  $P$ , also belonging to  $Z^+$ , is equal to  $P$ . Searching  $Z^+$  one discovers the first perfect number,  $P_1$ , is six, 6. That is, the proper divisors of 6 are  $\{1, 2, 3\}$  and \_\_\_\_\_, thus 6 is perfect, \_\_\_\_\_.

*Six is a number perfect in itself, and not because God created all things in six days; rather, the converse is true. God created all things in six days because the number is perfect ...*

Saint Augustine's **The City of God**

Continuing the search of  $Z^+$  one discovers the second perfect number to be twenty-eight, 28. The proper divisors of 28 are  $\{ \quad \}$  and \_\_\_\_\_, thus 28 is perfect and \_\_\_\_\_.

<sup>2</sup> So, perfect numbers do exist and there are at least two perfect number examples.

almost since written histories. They found that Pythagoras and Euclid were aware of these numbers and contributed to the search for others.

Since there are aleph null numbers in  $Z^+$  and initially searching for perfect numbers seems similar to searching for prime numbers, one might conjecture that there are aleph null perfect numbers. On one hand, primes seem to occur fairly often. But, perfect numbers seem to be distributed rather sparsely. For instance, applying prime factorization techniques one discovers that the third perfect number is four hundred ninety-six,

. But, there are a lot of numbers between 28 and 496. This conjecture seems to be just that, a conjecture at this time. No one has determined the collection of perfect numbers to be finite, nor has any one definitively proved the alternative, the collection of perfect numbers contains aleph null numbers.

**1/1/1  
is coming.  
What can you  
do with your  
class?**

The complete paper may be found on the TexMATYC website: [www.TexMATYC.org](http://www.TexMATYC.org)

## **Why TexMATYC?**

### **Paula Wilhite, Vice President**



Why renew your membership in TexMATYC? What should you tell your colleagues if they ask why TexMATYC is important? I was asked these questions at the TCCTA / TexMATYC conference in February. This was my response:

TexMATYC is our professional organization, an organization whose purpose is to promote mathematics education in the state of Texas. We are the voice of two-year colleges at the state level. We are the source of representation for mathematics education at the two-year college level. The annual joint TCCTA / TexMATYC conference provides quality professional development in current pedagogy, mathematical topics, and legislative issues. Online professional development is another option for members who cannot attend the annual meeting. In addition, the Southwest Regional Conference in San Antonio is set for June 15-16, 2007.

Please take time to visit with both full-time and part-time colleagues about joining TexMATYC. The annual five dollar membership fee is affordable for all. One of the most important benefits of membership is the participation in the larger community of two-year mathematics educators. It is well worth our time and effort to nourish both our local and state-wide programs of mathematics.

So what are you waiting for? Go to [www.texmatyc.org](http://www.texmatyc.org) <<http://www.texmatyc.org>> for your membership form. Send your form and fee to our treasurer, Habib Far. If you have additional comments, we would love to hear from you. Please forward these to [pwilhite@ntcc.edu](mailto:pwilhite@ntcc.edu).

## **Welcome new campus representatives!**

**Betty Swasko** -- Paris Junior College

**Dan Murphy** -- Victoria College

**Shirley Thompson** -- North Lake College



## **TexMATYC Executive Board**

### **Mel Griffin**

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### **Paula Wilhite**

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### **Heather Gamber**

AMATYC Delegate/  
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### **Linda Zientek**

Immediate Past President  
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### **Mary Robinson**

AMATYC Southwest VP  
U of New Mexico—Valencia  
maryrobn@unm.edu

## *Dates to Remember!*

### **AMATYC Southwest Regional Conference**

**June 15-16, 2007**

**San Antonio**

### **AMATYC Annual Conference**

**November 1-4, 2007**

**Minneapolis, MN**

### **Nominations for TexMATYC Teaching Excellence Award December 15, 2007**

### **TCCTA/TexMATYC Conference**

**February 22-23, 2008**

**Dallas, TX**

## **GOT NEWS?**

*If you know of any exciting news in  
mathematics, have it published in  
your TexMATYC newsletter.*

*Please submit articles to*

*Heather Gamber:*

*Heather.a.gamber2@nhmccd.edu*



**Check us out at  
[www.texmatyc.org](http://www.texmatyc.org)**