



# The Ohio Council of Teachers of Mathematics NEWSLETTER

January 2009

No. 95 +n



## Leland Knauf Wins Christofferson-Fawcett Award

On October 16, 2008, at the annual Awards Reception at the conference in Cleveland, Ohio, the OCTM presented Leland Knauf with the Christofferson-Fawcett Award for Lifetime Achievement in Ohio Mathematics Education. His acceptance speech, as well as the speech introducing him, are included later in this newsletter.

## Kuntz, Hambrick, and Dobberstein Win State Awards

Trish Yourst Koontz from Kent State University received the Kenneth Cummins Award for Excellence in College Teaching. Anne Hambrick from the Hamilton County ESC received the Myrtle Miller-Mary Jane Werner Award for Excellence in Elementary School Teaching. Sandra Dobberstein from Brookville High School received the Buck Martin Award for Excellence in Secondary School Teaching. Below are pictures of these awardees (holding their awards) along with any former awardees who were present at the ceremony and our special guest, NCTM President, Henry (Hank) Kepner.



Kenneth Cummins Awardees



Myrtle Miller-Mary Jane  
Werner Awardees



Buck Martin Awardees

## OCTM Annual Conference/NCTM Regional in Cleveland Was a Huge Success!

Congratulations to the committee chairs and volunteers who presented another great OCTM Annual Meeting in October. The additional bonus of being an NCTM Regional Meeting brought us even more presenters from around the country, including NCTM Executive Director, Jim Rubillo, and NCTM President, Hank Kepner. If you missed this one, mark your calendar now for the OCTM meeting in Cincinnati, November 12 – 14, 2009. You won't want to miss the next one!

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# All I need to know about life I learned from a cow (Presidential Ponderings)

-Bonnie Beach, Past-President

About 0.1% of you know that I collect cow-related things. I have a cow teapot, two cow tea kettles, five cow cookie jars, several cow plates, dozens of cow figures of various sizes and colors, a cow towel rack, a cow flashlight, cow pens and pencils, cow jewelry, and even a cow toilet bowl brush. I also have several prints, posters, and photographs of cows, such as the one included with the article. So it seems reasonable that, before my term ends this October, at least one Presidential Pondering should have a cow theme. Friends, here it is.

Before you read any further, please take a blank piece of paper and draw a picture of a cow. To read further without drawing a cow is cheating! Your drawing tells a lot about you.

If the cow is drawn:

- toward the top of the paper, you are positive and optimistic;
- toward the middle, you are a realist;
- toward the bottom, you are a pessimistic, and have a tendency to behave negatively.

If the cow is drawn:

- facing left, you believe in tradition, are friendly, and remember dates (birthdays, etc.);
- facing right, you are innovative and active, but don't have a strong sense of family, nor do you remember dates;
- facing front (looking at you), you are direct, enjoy playing devil's advocate, and neither fear nor avoid discussions.

If the cow is drawn:

- with many details, you are analytical, cautious, and distrustful;
- with few details, you are emotional and naïve, you care little for details and are a risk-taker.

If the cow is drawn:

- with less than four legs showing, you are insecure or are living through a period of major change;
- with four legs showing, you are secure, stubborn, and stick to your ideals.

The size of the ears indicates how good a listener you are -- the bigger the better.

But the fact that you drew a cow at all indicates your eagerness to participate in creative and innovative activities and therefore makes you an excellent mathematics teacher. [See I knew I could work mathematics into my ponderings!]

In my "cow" collection is a poster parody of Robert Fulghum's *All I Really Need to Know I Learned In Kindergarten*. I'm sure you've guessed -- All I need to know about life I learned from a cow. I end with sharing my "Fav Five" cow advice that will make you a better mathematics teacher. [Note I did not include: *Stepping on cowpies brings good luck.*]

*Wake up in a happy moooo-d* -- really! It will make the whole day go better. Your students won't seem so irrational and your classroom won't seem to be in constant chaos. Your principal won't seem like such a 'suit.' The teacher down the hall won't be such a pain. Your attitude will make all the different!

*Don't cry over spilled milk.* As Marilyn Burns has pointed out in several of her publications, confusion and partial understandings are part of learning. So don't beat yourself up when your students don't "get it." They will eventually!

*The grass is greener on the other side of the fence.* No matter how many years you've been teaching that topic, there may be a better way. Never get complacent. Keep searching for different ideas.



*Black and white is always an appropriate fashion statement.* Sometimes the mathematics we want our students to investigate is literally buried by the glitz and sophistication of our modern world. Perhaps we should just keep it simple -- yet elegant, of course.

And finally, my friends, *don't forget to cow-nt your blessings every day.*

# New Ways of Thinking About Professional Discipline (President's Message)

-Kim Yoak, President

Happy New Year! As we begin this next twelve-month journey together, I would like to share that I am sincerely honored to be serving OCTM and mathematics education in Ohio, and I believe that many exciting opportunities lie before us during the next two years and beyond. Below, I offer to you an adaptation of the comments that I shared at our annual awards reception in October at the conference. I welcome your comments, questions, and ideas at [kjyoak@gmail.com](mailto:kjyoak@gmail.com).

It is very appropriate that we honor our colleagues during our annual conference. One of the comments I have heard from many long-time OCTM members is that attending conference is a way of participating in a community, and the award recipients are clearly helping to lead the development of a strong mathematics education community in Ohio. Currently, OCTM is carrying the idea of community into a two-year project called BECOME OCTM, where BECOME is an acronym for Building an Energetic Community of Ohio Mathematics Educators.

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## BECOME OCTM

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In our current national culture, where more voices than ever are clamoring for a forum in which to recommend (or even demand) specific types of curricula and forms of assessment, it is more vital than ever that mathematics educators, as a strong community that advocates meaningful and challenging mathematics education for all, insist that our voices be heard. But I believe that it's easy for teachers and administrators to perceive the "mathematics education community" as an entity unto itself that will be able to speak on behalf of each of us. However, communities are necessarily made up of individuals and the more individuals who become part of a community, the stronger the community -- and the stronger the collective voice of its members -- will be. I *urge* you to ensure that your voice is a part of this collective.

One question that I often hear from teachers, parents, and others who are still coming to understand the message of the NCTM Principles and Standards is, "But doesn't every student learn differently? What if this way isn't best for some students?" This question can be very difficult to answer, because if we respond by saying that one method is best for *all* students, then we are making an absolute statement, examples of which rarely hold in education. However, if we respond by

saying, "Well, yes, students do learn differently," it's easy for others to believe that we're willing to back away from our philosophy as quickly as we've espoused it.

So, is there a better alternative? I believe that we must be able to demonstrate to those who raise questions about mathematics education that we are committed, both as individuals and as a community, to continually study, reflect, and collaborate in a *disciplined* way relative to the education of each student and groups of students, and to enact instruction and assessment based on this disciplined study, reflection, and collaboration. This discipline must echo what we know about how students learn in different contexts, and we must demonstrate that we hold ourselves to a high standard of professional discipline.

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Have you nominated a colleague, or even yourself, for an OCTM award? Check out the OCTM website at <http://www.ohioctm.org> to find out how!

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It is vitally important that the national mathematics education community make strong recommendations about the nature and content of school mathematics for *all* students in the United States. It is also vitally important that we, as individual members of this community, continue to learn from and with each other as we address inevitably unique teaching situations in *each* classroom and for *each* student across the United States. Each student must be able to graduate from high school with the ability to make independent decisions and to participate in any aspect of society in which he or she wishes to participate. I offer my congratulations to our honorees because I am confident that they embody the spirit of discipline, collaboration, reflection, and advocacy that are so vital to the lifelong success of our students.

Have you nominated a colleague, or even yourself, for an OCTM award? Check out the OCTM website at <http://www.ohioctm.org> to find out how!

As a New Year's resolution, I encourage you to set a specific goal of becoming more disciplined, reflective, and/or collaborative throughout the year -- because I believe that we naturally grow in all three of these areas as we grow in one. I truly look forward to meeting and working with as many of you as possible during the next two years as together we support our strong and growing community of mathematics educators in Ohio.

## OCTM NEWSLETTER

Four (4) times each year:  
September/January/March/June  
Published by the Ohio Council of  
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**IMPORTANT!! The March newsletter will be the LAST issue that will be mailed to you - OCTM is going green with a paperless newsletter!** As NCTM is starting to send e-newsletters, we are exploring a similar option. Please take a moment to update your e-mail address with OCTM by e-mailing Sister Mary Theresa Sharp at [tsharp@ndec.org](mailto:tsharp@ndec.org).

If you do not have e-mail, please call Kim Yoak at 330-689-5200, ext. 6255 and leave a message with your name and phone number.

## PUZZLE CORNER

- Duane Bollenbacher

Level 1: The floor of a rectangular room is covered with square tiles. The room is 9 tiles long and 6 tiles wide. If each corner tile is removed, how many tiles will be left?

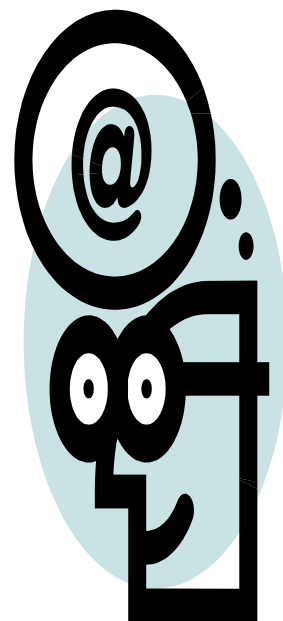
Level 2: Let  $n$  be a counting number. Then  $n^2$  (read  $n$  squared) means  $n \cdot n$ , and  $n^2 + 1$  means  $(n \cdot n) + 1$ . For example,  $5^2 = 5 \cdot 5 = 25$ , and  $5^2 + 1 = 5 \cdot 5 + 1 = 26$ . List all of the PRIME numbers less than 100 that are of the form " $n^2 + 1$ ".

Level 3: a) A natural number is "PERFECT" if the sum of all its positive factors, excluding the number itself, adds up to the number. For example, 6 is "PERFECT" because  $1 + 2 + 3 = 6$ . Find the next "PERFECT" number.

b) A natural number is "ABUNDANT" if the sum of all its factors, excluding the number itself, is GREATER THAN the number. For example, 12 is "ABUNDANT" because  $1 + 2 + 3 + 4 + 6 = 16$ , and 16 is greater than 12. Find all the "ABUNDANT" numbers less than 100.

[answers on p. 23]

BONUS: Do you notice that all the abundant numbers you just found are EVEN? Is there an ODD ABUNDANT number? If so, can you find it? If not, can you prove that one does not exist? (Answer will appear in the next OCTM NEWSLETTER.)



[Editor's note: following are speeches from the annual awards ceremony.]

## Presentation Speech 2008 Christofferson-Fawcett Award

– Daniel J. Brahier

Friday, 18 October 2008

This year's Christofferson-Fawcett Awardee began a professional career as a high school mathematics and physics teacher immediately after earning a B.S. in Education with a major in mathematics and minors in chemistry and physics from Kent State University. As head of the mathematics department, this person organized a math club. This person also developed a Mathematics Marathon. The club members would select teams of four members, and once each month the teams would work cooperatively on a selection of mathematics puzzles and, as they were called then, "brain teasers." During these early years, this person also earned a Masters in Education from Kent State University. This person was the chair of a multi-county science fair and served as a judge of other science fairs for many years.

This person was eventually appointed to the mathematics faculty at a local university, and for several years, held a joint appointment with the secondary education department. This person taught special methods for secondary mathematics teachers. In the class, this person would emphasize the accomplishments of NCTM, OCTM, and the local affiliate, as well as the value of joining them. This person also pursued graduate studies in mathematics and math education at Florida State University. Many of this person's former students have and are still serving as officers and/or committee members of a local affiliate and of OCTM. This person was a campus supervisor of student teachers and an advisor to the math club. Other than the usual college level mathematics classes, this person taught two math classes for elementary teachers, and developed elective courses in algebra and geometry for elementary teachers. For many years, this person conducted summer math workshops for teachers. As director of an Eisenhower grant, this person chartered a bus trip for them to attend a regional NCTM meeting. This person introduced TAPS (which means "Team Approach to Problem Solving") for area students in grades 7 and 8.

The Christofferson-Fawcett Awardee is a lifetime member of the OCTM and NCTM and helped organize a local affiliate of OCTM. He served on the OCTM Board for a 10-year stretch

with perfect attendance – four years as President of an affiliate, three years as Vice President for College, and three years as a District Director. Later, he served as the NCTM Representative. He chaired many committees and compiled the first Human Resources Directory for OCTM, with topics and potential speakers on mathematics education. He was the program chair when the local affiliate hosted an annual OCTM conference and later served as general chair for another OCTM meeting. He was a site director for the annual OCTM high school mathematics contest for the first thirteen years of its existence. He has had articles published in the OCTM newsletter and has spoken at a variety of affiliate events, as well as PTAs, 4-H groups, and other meetings.

He has been a delegate to the NCTM assembly several times, representing the local affiliate as well as OCTM. He has spoken at many NCTM meetings from Seattle to Orlando, San Diego to Boston, and many places in between. While at the NCTM meetings, he spends much of his time at exhibits, checking out the latest books and materials so that his students are kept up-to-date on the latest innovations and to remain qualified as a reviewer. He had problems published in the calendar section of *The Mathematics Teacher*, participated in NCTM's Mathematics for the 21<sup>st</sup> Century conference, and attended several annual meetings of the National Council of Supervisors of Mathematics and of the National Middle School Association.

He attended his first NCTM meeting in Cleveland in 1957 and hasn't stopped attending since. He participated in a Leaders Conference in Reno in 2006 and is scheduled to speak next month at the NCTM Regional conference, also in Reno. Now it seems reasonable to note that the "local university" at which he spent over 30 years is Youngstown State University and the local affiliate of OCTM and NCTM of which he was a leader among the founding members is the Eastern Ohio Council. Oh, yes, this year's Christofferson-Fawcett Awardee lives on a farm on which his grandfather built a home and which is located on Knauf Road near Youngstown. Please join me in congratulating our Awardee, Lee Knauf!



Hank Kepner, Lee Knauf, and Dan Brahier

## 2008 Christofferson-Fawcett Award Comments

– Lee Knauf

Friday, 18 October 2008

I'd like to tell you about some of the things that have happened along the way and some of the people I have met along the way that helped me get here tonight. I don't have time to mention everybody but I have thought about many of you in the process of writing this speech.

You might say that I was born into part of the history of Mahoning County. I was born in a farmhouse, built by my grandfather, on the property where I still live. The house was 100 feet from Knauf Road on the west and 100 feet from the original Knaufville post office on the east and 1/4 of a mile from THE Western Reserve road to the south. Yes, it is the dividing line for the Connecticut Western Reserve where the townships are 5 miles by 5 miles on our side and 6 miles by 6 miles on the other side of the road. I attended a four room elementary school—2 grades per classroom—grades 1-8.



We were then bused 5 miles to an adjoining village high school. Ten of us joined 30 some students who had been together for 8 years—we were just country hicks to them. I had been a typical student who probably did my best but it wasn't until high school that I realized grades were important.

PICTURE THIS--A neighbor, I knew, –we'll call him Franklin – became a new classmate and close friend. I had worked for his father picking peaches, etc. His father had been a very respected county superintendent of schools. Franklin was the “brain” of the class. I was the youngest boy in the class—Franklin was 8 months older than I. At the end of our freshman year something called the Ohio

Scholarship tests were given, so I took two of my choosing. I placed first in algebra ahead of Franklin. I went to the district contest and placed 4<sup>th</sup> in the district and 9<sup>th</sup> in the state. That did it! I knew then that I wanted to become a mathematics teacher. To make a long story short, I continued taking the math tests and Franklin and I and others tied for first in our graduating class. I had some great teachers along the way but I must mention my high school principal who believed in me. He was the math and science teacher as well as the principal. During our senior year he would have me take over our math class if he had other business to do—and he helped me get a tuition free scholarship to Kent State University – \$30.00 per quarter then.

It was at Kent State University that I became acquainted with Joe Kern and Emalou Brumfield. I had Emalou as an instructor and learned all about Dr Fawcett and his methods as Emalou had studied under him. For some reason, Joe was always a class behind me. Our senior year, I had been elected president of Sigma Xi, the science honorary, and Future Teachers of America, the largest organization on campus, so when it came time for officers for Pi Mu Epsilon, the math honorary, it was decided that Joe and I should swap jobs—so I became the treasurer and Joe the president. Emalou did have a copy of the program for the 5<sup>th</sup> annual meeting of OCTM at Kent and Joe and I served on some committee. OCTM met in the classrooms on the third floor of the math building—some change today!

In 1957, I was selected to attend a weeklong conference at Kent State sponsored by the University of Illinois program and conducted by Dr. Max Beberman, its creator. This U of Illinois program had no connection to the current U of Chicago project. This was the week Russia launched Sputnik. Part of the reason I selected Florida State was that Dr Eugene Nichols, my advisor, had studied under Max and was a strong advocate of the program. As many of you know Dr Nichols authored many textbooks and was a director of NCTM.

In 1957, I attended my first NCTM annual meeting right here in Cleveland. Then in 1958, I had to make an important decision. I used most of one of my paychecks to pay for a life membership in NCTM—an astounding \$105.00—what an investment that turned out to be!

Soon after I started at Youngstown University, I was asked to be on a panel for a PTA to talk about the “new” math. Well, the school was over 25 miles away, so I knew that I would be considered an “expert.” I got there early, as usual, and finally another member of the panel arrived— a gentleman with the most beautiful white hair walked through the doorway and I recognized him immediately—it was Dr. Harold Fawcett. I thought, “what am I doing here with this

giant of the math ed world?" We were the only two on the panel. At the end of the evening he shook my hand and said "great job, young man!"

While at YU, later renamed YSU, I had many students of note. One in particular, was a very conscientious and likeable student and student teacher named Margie Raub. Her lesson plans were always complete and in great detail. I emphasized in both my methods classes and to my student teachers to include a section on potential difficulties that the students might encounter in the assignment. Margie handled this aspect very well, as well as many other aspects of her life. Thanks for the memories and the pin, Margie.

In 1974, another former student, Rosie Marich, suggested to Barb Taylor that I might like to organize a local council. Barb called me and I just couldn't say no. Thus, EOCTM was born! As the president of the new group, it was my "duty" to attend the OCTM board meetings at Capital University with Harold Brockman as the host. It was here that I met this young, energetic (the descriptive list could go on) president and to-be-lifelong-friend named Richard Little. Thanks for everything, Dick. I would drive to Myrtle Miller's house in Canton, Dick would meet us there and the three of us would go on to Columbus.

I remember Steve Meiring's first OCTM board meetings and how he had many great ideas and attending his well planned workshops. He brought something special to the state of Ohio.

I was there for Peggy Kasten's first meeting. Oh what a bundle of enthusiasm she was and still is. I'll never forget your acceptance speech for this award—what a great job!

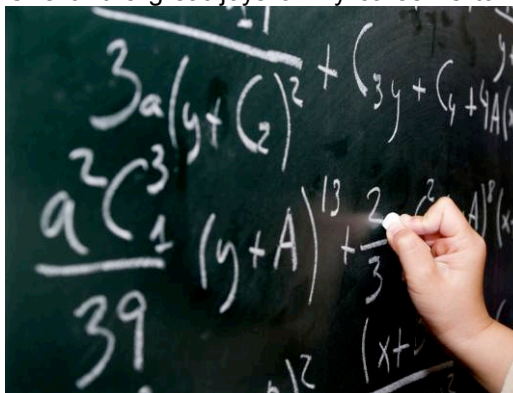
This period was, shall we say, the peak of the publisher's years as there were many and each one tried to outdo each other at the NCTM annual meetings. They would have large spreads of food, drink, and entertainment in the ballrooms. Several of us would "work" the exhibits hall and my wife, Virginia, would compile a list of the companies, the night, time and location of these. Bill Hunt, Linda Gojak, and Karen Ardner and others were part of this "live happy" group. At these functions, we met and talked with so many current and future leaders of NCTM. Just to mention one: Virginia and I remember a young, red haired, western-looking guy wearing cowboy boots and being very friendly who became an author

and president of NCTM—Johnny Lott. He remembers those days, too.

Speaking of my wife, Virginia has been a valuable asset to my professional career. She started the kindergarten program in our school district and after our children were born, she went back as a substitute teacher. She eventually taught in many county and inner city schools and all grades K-8. She helped keep me abreast of what was going on in the schools, encouraged teachers to join EOCTM, and helped supply students for my summer of growth workshops.

We have three children—some of you know all three of them. Rodney is a CPA in South Carolina. He and his wife Lorene have two children. When we came down from our room tonight, he surprised us as he was in the lobby with our other children; he had flown in earlier in the day. Kent is a civil engineer in Austintown and his wife, Angela, has a degree in Early Childhood Education. They have three children. They live next door to us on the farm which means that their front door is at least 300 feet from ours. Wendy is a math teacher at West Branch High School.

One of the great joys of my career is to have had the



the opportunity to teach all three of our children for their four quarters of Calculus—yes, they did earn A's. And Wendy got a special bonus—she met her future husband in the calculus I class—Dan Lough who has a mechanical engineering degree. They have two children and live on the other side of Kent and Angela on the farm.

Many of my former students are here and some have been very active in OCTM—Debbie Haverstock, Della McPherson, Tom Reardon to name a few.

I was there when the board set the guidelines and the name for this award. It was 1981 that the board selected the first recipient. I was the general chair for the annual meeting in Akron and I had the GREAT honor of presenting the first Christofferson-Fawcett award to the great, late Dr. Kenneth Cummins. Yes, I too took some of his classes. I said to myself then—I hope I can achieve enough success to receive this award some day. THAT DAY IS HERE AND IT FEELS GREAT!!!! Thank you so very much.



### **OCTM District-Level Teaching Awardees**

Central District: Elaine Humes, Olentangy High School; Mandy E. Robek, Tyler Run Elementary

East District: Carol Oberholtzer, Ashland High School; Carol Miller, Roosevelt Elementary

Northeast District: Jennifer McCalla, Normandy High School; Diane Hammond, Timmons Elementary

Northwest District: Connie Miller, Upper Sandusky High School; Carrie Harmon, Green Springs Elementary

South District: Brenda Bays, Northwest Middle School

Southeast District: Nina Sudnick, Athens Middle School; Victoria Thompson, Meadowbrook Middle School

Southwest District: Jennifer Vieira, Hamilton High School; Barbara Nadler, Mason Intermediate School

West District: Amanda A. Jerdon, Eaton Middle School



Pictured on this page are most of the awardees along with their District Directors.

## OCTM 2009 Annual Conference in Cincinnati Mathematics: A Bridge to Your Future

-Margie Coleman, Conference Co-Chair

Make sure to mark your calendars now for the next OCTM Conference to be held November 12 – 14, 2009, at the newly renovated Duke Energy Center and the beautiful Hyatt Regency Hotel in Cincinnati, Ohio. The conference committee is busy planning an event you won't want to miss.



The keynote speaker on November 12<sup>th</sup> will be former NCTM President, Cathy Seeley. Dr. Seeley has a distinguished career in mathematics education. She has worked as a mathematics teacher, district mathematics coordinator and state mathematics supervisor for the Texas Education agency. In addition to her term as NCTM president, Dr. Seeley served on the writing team for NCTM's 1989 Curriculum and Evaluation Standards for School Mathematics. She has frequently been an advisor and consultant to school districts, state agencies and professional/community organizations, as well as a Peace Corps volunteer in Burkina Faso, West Africa.

Then, after the last session on Thursday, you will want to head over to the Exhibitor Hall for the "Games Extravaganza!" Enjoy time with colleagues playing various

educational/logic games. Who knows? You might even win a game to take home with you! It will also be an opportunity to talk with vendors without missing any sessions. The Games Extravaganza will take place in the Exhibitor Hall in the Convention Center on Thursday evening, November 12<sup>th</sup>, from 4:00 PM – 6:00 PM.

If you are a pre-service teacher or a new teacher, you can look forward to several events designed just for you. There is a subcommittee focused on developing a strand of sessions and other gatherings geared toward new or pre-service teachers. Don't miss this chance to network with others just getting started in education, while also making contacts with veteran educators for additional support. You will also enjoy the creative and entertaining Dr. Jeff Wanko who will deliver the Len Pikaart Memorial Lecture, which is an annual keynote address specifically designed for pre-service teachers.

The closing event this year will be a performance of the wildly popular phenomenon, "Calculus, the Musical," a comic musical review of the concepts and history of calculus that has caused a sensation across the country in classrooms and at theater festivals. It is consistently selling out performances everywhere it is performed. You don't need to know anything at all about calculus to enjoy this hilarious performance. In fact, its sold-out audiences regularly include all levels of expertise, from professional mathematicians to those with serious math anxiety. Theater goes might pay \$15 or more admission, but your registration for the conference includes free admission to this performance on Saturday, November 14<sup>th</sup> at 1:00 PM.

This is just a sampling of the great events and opportunities you will enjoy at the conference this year. Don't miss out! Go to [www.ohioctm.org](http://www.ohioctm.org) for more information. Registration will be available there soon.

## What's on the horizon for OCTM in 2009?

*-Kim Yoak, President*

The Executive Board had a great meeting on December 7 (blizzard conditions notwithstanding), and many exciting plans are in the works for this year. The following are opportunities with which we invite all members (including potentially new members!) to become involved this year! Please e-mail Kim Yoak at [kjyoak@gmail.com](mailto:kjyoak@gmail.com) if you have ideas related to any of these plans or ideas for others!

**New, interactive, secure website** – This exciting new benefit of membership will allow OCTM to operate online similar to the manner in which NCTM does. Membership (with credit card capability), conference registration, and eventually OCTM discussion boards and e-mail, as well as numerous other functions, will be features of the site. We hope that the site will be up and running by the late spring or early summer.

**Electronic newsletter** – To move into the technology age and join NCTM in “going green,” we will be phasing out the paper newsletter over the next year. The June newsletter will be the first to be available online, so all members will need to be sure that you have updated your e-mail address with Sister Mary Theresa Sharp, our Membership Secretary, at [tsharp@ndec.org](mailto:tsharp@ndec.org).

**Emerging Leaders Conference** – See the flier in this newsletter for more information about this great opportunity for pre-service teachers and teachers with up to five years in the classroom.

**Greater journal accessibility** – The Executive Board is exploring the possibility of including the journal in the EBSCO research database (available to university students and faculty) and also eventually in paperless form on our website (for members only).

**Position statements** – The position statements which were drafted in the fall and available online for

comment in October and November will be finalized this spring and voted on by the board in March. See the website for drafts of these statements.

**Collegial discussion groups** – Ideas are on the table for creating ways for small groups of OCTM members to learn together across Ohio via phone and internet conferencing. Look for more information about these in the coming year, and let your District Director know if you have an idea for a group or are interested in facilitating one!

**Replacement of brochure** – The Publications Committee has recommended the replacement of the brochure position, filled so well by Don Gerke for many years, with a committee that would serve and communicate with OCTM members and potential members in a variety of ways. The board will work with this recommendation over the next few months.

**Possible mission statement revision** – The Executive Board has begun to discuss the possibility of revising the mission statement to focus our efforts as an organization more specifically on the significance of, and the needs of, teachers in Ohio classrooms.

**Potential OCTM donor program and products** – Though some members do currently donate to OCTM (thank you!), we are studying the idea of a more structured donor program, which could also be managed through the new website. Further, we are exploring several small but popular types of OCTM products that members might like to purchase – shirts, bags, pencils, notepads, etc.

**AND REMEMBER OUR OCTM TOURNAMENT (FEB. 28) AND ANNUAL CONFERENCE (NOV. 12-14), WHICH CONTINUE TO BE GREAT TRADITIONS! SEE THE WEBSITE FOR MORE INFORMATION!**



### Passing the Gavel

At the annual membership meeting of the Ohio Council of Teachers of Mathematics, held October 18, 2008 as part of the OCTM Annual Conference/NCTM Regional Conference, then-President Bonnie Beach officially passed the gavel (pictured) to Kim Yoak, who is beginning her two-year term as President. The members of OCTM are grateful to Bonnie for her outstanding leadership over the extended term that she served and look forward to working with Kim as the organization continues to progress.

# SECO/OCTM Joint Membership Form

For Teachers of Grades K-6

Science Education Council of Ohio/Ohio Council of Teacher of Mathematics



**MAKE  
CHECKS  
PAYABLE TO:**

**OCTM-SECO**

Name: \_\_\_\_\_

School/Institution: \_\_\_\_\_

Position/Title: \_\_\_\_\_

School/Institution Address: \_\_\_\_\_

School/Institution City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

School/Institution Telephone: (\_\_\_\_) \_\_\_\_\_ FAX: (\_\_\_\_) \_\_\_\_\_

E-mail: \_\_\_\_\_

Grade Level(s): \_\_\_\_\_

Home Address \_\_\_\_\_

Home Telephone: (\_\_\_\_) \_\_\_\_\_ Home FAX: (\_\_\_\_) \_\_\_\_\_

Home City: \_\_\_\_\_ Home State: \_\_\_\_\_ Home Zip: \_\_\_\_\_

Please indicate the address where you would prefer to receive SECO or OCTM information. \_\_\_\_\_ Home \_\_\_\_\_ School/Institution

*M* Male  
*N* New Membership  
*\$38* Regular 1-year

*F* Female  
*R* Renewal

**D** From time to time OCTM will be making their members' mailing information available to other reputable organizations or companies for mathematics-related products, or services that might be of interest to our members. We are confident that many of our members will find this a valuable and time saving service. If however, you prefer to be excluded from these mailings, check this box.

**Mail Completed Form To:**

**Adele Cohn  
OCTM Executive Director  
4004 Monticello Blvd.  
Cleveland Heights, OH 44121**

## OCTM Individual Membership Form

Name:	
Address:*	
<i>*College students: Please provide your permanent address.</i>	
City:	
State:	Zip:
SS#: XXX-XX-____ (last four digits)	
Home Phone:	Work Phone:
E-mail:	
OCTM will soon begin to offer the quarterly newsletter by e-mail to members. Please check the method by which you prefer to receive the newsletter at that time: <input type="checkbox"/> E-mail <input type="checkbox"/> Regular mail	
Employed by:	
Position:	
Grade Level(s):	
<b>Please Check:</b>	
<input type="checkbox"/> Male <input type="checkbox"/> Female	
<input type="checkbox"/> New Membership <input type="checkbox"/> Renewal	
<input type="checkbox"/> \$25 Regular 1-year <input type="checkbox"/> \$60 Regular 3-year <i>(Make check payable to OCTM)</i> <input type="checkbox"/> \$10 First-year teacher 1-year        *Note: The latter three options are not <input type="checkbox"/> \$5 Full-time student 1-year            available to those joining through OEA.	
<input type="checkbox"/> Life- Available without payment of dues to persons who were OCTM members for 20 consecutive years prior to retirement.	
<input type="checkbox"/> From time to time OCTM will be making our members' mailing information available to other reputable organizations or companies for mathematics-related products or services that might be of interest to our members. We are confident that many of our members will find this a valuable and time-saving service. If however, you prefer to be excluded from these mailings, check this box.	
I am interested in the following involvement opportunities with OCTM:	
Name _____ E-mail _____	
<input type="checkbox"/> Planning regional professional learning opportunities <input type="checkbox"/> Serving on planning committees for the state conference <input type="checkbox"/> Helping to plan the OCTM Tournament (mathematics contest for students) <input type="checkbox"/> Serving on the Membership committee (keeping in touch with members) <input type="checkbox"/> Writing newsletter/website articles OR locating information for these <input type="checkbox"/> Soliciting or writing manuscripts for journal articles <input type="checkbox"/> Writing position statements <input type="checkbox"/> Communicating OCTM information to my local colleagues (by e-mail) <input type="checkbox"/> Other: _____	
<b>Mail completed form to:</b> Sister Mary Theresa Sharp, S.N.D. OCTM Membership Secretary 13000 Auburn Road Chardon, OH 44024-9330	

## Directory 2008-09

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### \* Vice President Secondary-- 2011

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## OCTM Mourns the Passing of Sarah Bolank Greenholz (1919 – 2008)

Sarah was a passionate scholar and progressive educator who gave back to the community. She worked as a teacher and supervisor for the Cincinnati Public Schools for 34 years as both a classroom teacher in mathematics at elementary and secondary levels and then a Supervisor of Secondary Mathematics. In addition, in a unique experiment at the time, she taught mathematics on WCET reaching children in five states.

She received her BA in 1940 from the University of Cincinnati and was elected to Phi Beta Kappa and Mortar Board, in which she remained an active alumna. In 1941, she also received her BE from UC, and then in 1959 received her Master of Education degree also from UC. Sarah received scholarships from McMicken Arts and Sciences while a student at the University of Cincinnati, and not forgetting the generosity which made such a difference in their lives and careers, she and her late husband, Richard Greenholz, have endowed a total of four annual scholarship funds at the University of Cincinnati.

Sarah also participated in and was a leader in other organizations including NCTM and OCTM where she received the Christofferson-Fawcett Award in 1986 for her distinguished leadership and service to mathematics education. Highly respected in her field, Sarah was in great demand for additional assignments which included reviewing articles submitted to the *Mathematics Teacher* and the *Arithmetic Teacher* publications, serving as an advisor for the Ohio Survey Tests, and participating in the Association of Supervision and Curriculum Development. She was published in *Mathematics Teacher*, *Arithmetic Teacher*, *NEW Journal*, *Today's Education* and *Updating Mathematics*, a Croft Education Services publication.

Beloved wife of the late Richard Greenholz, sister of the late Carolyn Signom, she is survived by dear cousins Alberta Kirby and Shirley McClure, two nieces, Suzanne Moore of TN and Judi Meyers of IL and one nephew Dr. Stephen Greenholz of CA.

## OMSC MEMBERSHIP NOMINATION FORM

The Ohio Mathematics and Science Coalition (OMSC) is an advocacy group comprised of leaders from the business, education and public sectors working for improvement in mathematics and science learning in Ohio schools. OMSC is working to develop a shared state-wide vision, and implement and monitor a state-wide continuous improvement plan for mathematics, science and technology education to assure that Ohio students receive a world class education. Nominees should be knowledgeable of the needs of Ohio education, have leadership skills, understand the educational and political environment and the change process, and be representative of a cross-section of sectors (education, business, public), community type

(urban, suburban, rural), and geographic distribution. The Coalition meets three times a year in Columbus, and conducts most of its business through committees. Nominations are accepted year-round. New members are notified in the spring of each year and are inducted at the May Coalition Meeting.

If you would like to nominate someone or apply for membership in the coalition, please complete the nomination form below and then email, mail or fax the information to Ohio Mathematics and Science Coalition, 1375 Euclid Avenue, Cleveland, OH 44115, Email [jamie.milne@ideastream.org](mailto:jamie.milne@ideastream.org), or Fax to 216.916.6439 by March 15.

*Please complete all \* fields, before you submit the form.*

<b>*Nominee First Name:</b>	
<b>*Nominee Last Name:</b>	
<b>*Nominee's Organization</b>	
<b>*Preferred Street Address</b>	
<b>*City</b>	
<b>*State</b>	
<b>*Zip Code</b>	
<b>*Email Address</b>	
<b>*Day Phone w/ Area Code</b>	( )
<b>Home Phone</b>	
<b>Fax Number</b>	( )
<b>How do you believe that you will contribute to the goals of OMSC?</b>	

*Nominator Information (if initiated by someone other than Nominee):*

<b>*Nominator's First Name:</b>	
<b>*Nominator's Last Name:</b>	
<b>*Nominator's Organization:</b>	
<i>In the space to the right, please outline the qualifications of the candidate and how they will contribute to the goals of OMSC.</i>	

## Ohio Roots of NCTM (Historical Tidbits from Dr. Kullman)

--*Dave Kullman, Miami University*

Last year's NCTM Cleveland Regional Conference was only the latest in a long line of NCTM events tied to Ohio. It is no exaggeration to say that the National Council of Teachers of Mathematics has roots in Ohio. Here are a few of those roots:

NCTM was founded in Cleveland in 1920, and four of the eight speakers at the organizational meeting were from Ohio. During its first decade, NCTM held two more annual meetings in Ohio (Cleveland in 1923 and Cincinnati in 1926).

The "founding father" of NCTM, Charles M. Austin, was a native of Ohio. He was born near Waynesville in 1874, graduated from Waynesville High School in 1892, and from Ohio Wesleyan in 1903. He taught in country schools near his hometown and later at Milford High School. In 1912 Austin moved to Oak Park, Illinois, to become head of the high school mathematics department.

Austin was a founder of the Men's Mathematics Club of Chicago, and that group spearheaded the movement to establish a National Council of Teachers of Mathematics. He was elected as the first president of NCTM in 1920 and later served a term as vice president and four terms on the board of directors. He also edited

the first NCTM Yearbook.

The first female NCTM President was also a "Buckeye." Marie Gugle was born in Columbus in 1876. She earned her bachelor's degree from Ohio State University and began teaching mathematics at Scott High School in Toledo, where she established a "Euclidean Club" for students. After earning a master's degree from Columbia University, she returned to Columbus where she was a mathematics teacher, assistant superintendent, and high school principal prior to her retirement in 1943.

Gugle had been elected as the first female president of the Central Association of Science and Mathematics Teachers in 1916. At the organizational meeting of NCTM she chaired the session on junior high school mathematics and was asked to help draft the constitution. Later that day she was elected to her first of three terms on the Board of Directors. She went on to become NCTM's fourth president, and its first female president, in 1926.

Ohio continues to supply the National Council of Teachers of Mathematics with officers. We can claim six NCTM presidents, seven vice presidents, seventeen directors (including two who are currently on the board), and an editor of *The Mathematics Teacher*. How many of these can you name? [Answers are on page 23.]



## Ohio Department of Education Update

--*Vicky Kirschner, ODE Mathematics  
Consultant*

The mathematics consultants at ODE have been benchmarking Ohio's mathematics standards to the mathematics standards for the following countries: England, Finland, Netherlands, Hong Kong, Japan and Singapore. The findings of this benchmarking along with standards documents from other states, NCTM, Achieve, College Board and others will be used to inform a possible revision of the Ohio Academic Content Standards for Mathematics.

For schools who participated in the Algebra II EOC test pilot last spring, Achieve has released two documents containing 30 additional items with commentaries to provide teachers with an additional resource for the multi-state Algebra II EOC exam. One document contains the items and the other contains the

item commentaries. These two documents can be found on the Achieve Web site at [www.Achieve.org](http://www.Achieve.org). Select "Algebra II End-of-Course Exam: 2008 Annual Report" under Achieve Reports on the right side of the homepage. Then select "Assessment Partnership Overview" under Related Content on the right side of the page. You will find these documents on this page listed on the right side under Related Content for Algebra II: "Released Items (Oct. 2008)" and "ADP Algebra II Released Items Commentaries (Oct. 2008)."

An Electronic Portal for the Ohio High School Program Models Project is now live on the ODE Web site: [www.education.ohio.gov](http://www.education.ohio.gov). To find the portal, search for "Program Models Portal." Here you will find reports from participating schools explaining how they became involved in the process and their strategies to re-write curriculum and obtain professional development. In many cases specific ready-to-use lessons are included. Contact information for school team leaders is available for follow up on a personal basis.

## OCTM Mathematics Tournament February 28, 2009

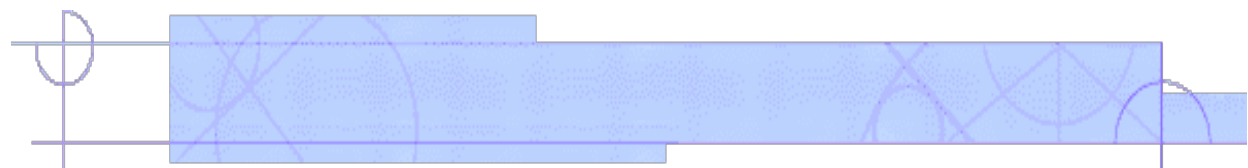


--Charlie Kobida, OCTM  
Contest Director

2009 brings two new sites for the OCTM Tournament...Shawnee State University in Portsmouth for those schools in southern Ohio and OSU-Marion Campus in Marion.

This year the date for registering and submitting fees without the late fee is February 1, 2009. Check out the tournament website, [www.OCTMtournament.org](http://www.OCTMtournament.org), for important date information and for registration information.

If you are interested in grading this year's test at Lakota West High School, you can register to grade at the official website by clicking on 'graders' in the left hand column.



### Free Professional Development for Algebra Teachers from EMPT

**Purpose:** To provide ideas on pedagogy and curricula for a remedial senior ALGEBRA II level course for students not ready for pre-calculus, but with aspirations for college or work. The 1.5 to 2 day workshop uses function concepts, representations, and behaviors to teach content for a senior remedial algebra course. All algebra teachers should find the course of interest.

**Overview:** Teaching algebra from a function approach means using function representation and function behaviors to teach content such as factoring, equation solving, arithmetic operations on polynomials, systems of equations, inequalities, properties of inequalities, definitions, concept of asymptotic behavior, absolute value, slope, laws of exponents, etc. Using unique materials, we use function concepts to develop understanding of, interest in, and correct long-term memory of traditional algebraic ideas. We capitalize on cognitive processes of associations, pattern building, attention, visualizations, meaning, the enriched teaching environment, distributed learning, and priming. We model how to teach algebra through a function approach with graphing calculators, and demonstrate why they are crucial to teaching and learning. The EMPT

Professional Development Program service is FREE to Ohio high schools.

To schedule a free 1.5 to 2-day workshop at your school, please see the application at [http://www.empt.org/empt/prof\\_dev/academic\\_yr.asp](http://www.empt.org/empt/prof_dev/academic_yr.asp). For more information, please email Ed Laughbaum at [elaughba@math.ohio-state.edu](mailto:elaughba@math.ohio-state.edu)

### College Expectations in Mathematics

Student success in college is directly linked to the high school experience. In order to address issues of academic preparation, Ohio has taken several steps to ensure that students, parents, and teachers know and understand the expectations for a successful transition to college and the workforce – including the development of the College Readiness Expectations in Mathematics.

The College Readiness Expectations define what students need to know and be able to do before they begin their first non-remedial, college level course in mathematics courses while students still have time to address potential deficiencies while in high school. Partnered with a statewide placement policy, the College Readiness Expectations can help students avoid remediation in college and succeed in timely degree completion.

See <http://regents.ohio.gov/collegereadiness/> to download the full expectations document.

## Ohio Early College Mathematics Placement Testing Program (EMPT) for High School Students

An interesting study done by Strong American Schools with results published as the booklet *Diploma to Nowhere*, points out that the "SAS survey found that 59% of respondents felt that their high school courses were very or somewhat easy; 50% said they were bored most or almost all of the time." Yet 32% of recent high school graduates attending college must REPEAT high school algebra and sometimes they must even start with a remedial course at the arithmetic level. In the same report, they point out that Ohio spends about \$134,000,000 a year on remediation at the college level.

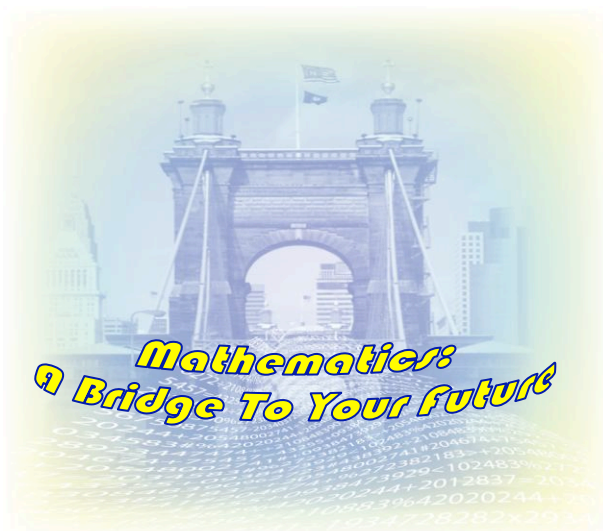
The Ohio Early Math Placement Testing Program can provide help with this discouraging data. EMPT offers FREE tools you can use to keep track of student progress toward college level mathematics, and they are available on-line where your students may access the tools anyplace, any time, and on their own time! Armed with EMPT testing data and EMPT reports, schools can help students take action to correct problems. Sign up for your high school at [www.empt.org](http://www.empt.org). Paper tests

are available for sophomores, juniors, and seniors; and all three tests are available on-line. Did you know?

The Ohio Core Legislation (SB 311) says:

- Sec. 3301.43. The partnership for continued learning [as created by this law], in collaboration with the Ohio board of regents and the state board of education, shall recommend a means of assessing high school students' college and work readiness, especially in English and mathematics. The partnership shall recommend one or more assessments that can achieve the following goals:
- (A) Measure students' skills against identified college and work-ready expectations in English and mathematics and serve as an indicator of students' readiness to successfully complete introductory level coursework at an institution of higher education and to avoid remedial coursework;
  - (B) Promote consistency in high school academic course content, quality, and expectations;
  - (C) Provide individual students with information to assist in planning the remaining high school learning experience;
  - (D) Serve as one indicator for college admission or placement;

EMPT tests meet or exceed all the desired outcomes of the Ohio Core Legislation listed. We invite you to get ahead of the curve as you prepare for 2014. For further information, please contact Ed Laughbaum at [elaughba@math.ohio-state.edu](mailto:elaughba@math.ohio-state.edu) or by phone at (614) 292-7223. EMPT is funded by the Ohio Board of Regents.



**Save the Date!**  
**OCTM Annual Conference**  
**November 12 - 14, 2009**  
**Cincinnati, Ohio**

## Duane Bollenbacher's 21<sup>st</sup> Annual Summer Workshops at Bluffton University, Bluffton, Ohio (Between Toledo and Dayton on I-75)

Tentative Courses to be Offered (3-day workshops; LPDC Credit or Graduate Workshop Credit Available)

W-F, June 10-12 *"Mathematics HQT Certification for Intervention Specialist"*

T-Th, June 16-18 *"Learning to use the TI 83/84 Grapher as a Powerful Teaching Tool in Middle School"*

T-Th, June 23-25 *"Make-It, Take-It Activities for the MIDDLE SCHOOL/HIGH SCHOOL Mathematics Teacher"*

T-Th, June 23-25 *"Historical Topics for Middle and High School Mathematics Classrooms"*

T-Th, August 11-13 *"Tips On Becoming A MIDDLE SCHOOL MASTER TEACHER OF Mathematics, Course 3"*

T-Th, August 11-13 *"Tips on Becoming a MASTER TEACHER of High School Pre-Calculus Mathematics"*

Completion of ANY TWO of these Workshops may be used to meet the HQT requirements to become a HIGHLY QUALIFIED TEACHER as an INTERVENTION SPECIALIST in mathematics. For further information, brochures/registration forms (available by March), or questions, contact: Duane Bollenbacher, Bluffton University; W: 419-358-3296; [bollenbacherd@bluffton.edu](mailto:bollenbacherd@bluffton.edu)

### Mathematics PUNS In Unexpected Places

- Duane Bollenbacher



Do you enjoy puns? Do you like to GROAN?

During the years of 1993 to 2002 while Duane Bollenbacher was Contest Director for the OCTM High School Mathematics Contest, the final answer sheet contained the name of a "fictitious" STUDENT and a "fictitious" HIGH SCHOOL. Listed below are those phony student names and their bogus high schools. (Some of these are credited to Richard Little, previous Contest Director who had used some of the fictitious names.)

1993:	Polly Gonne	Ohio High School
1994:	Cal Q. Layter	Graffer High School
1995:	Chegat M. Alright	Ohio High School
1996:	Gene E. Uss	Einstein High School
1997:	Matt Maddux	Numbers High School
1998:	N. Telly Jentz	Braney High School
1999:	Al G. Braugh	E. Kwaysion High School
2000:	G. Omma Tree	Circle City High School
2001:	Al T. Tood	Triangle High School
2002:	Cal Q. Luss	Sir Isaac Newton High School



## ***Emerging Needs for Quantitative Literacy across the School Curriculum: A Conversation among Education, Business, and Community Stakeholders***

The Ohio Mathematics and Science Coalition, in cooperation with the Ohio Resource Center, the Ohio Department of Education, and other partner organizations within the Ohio Board of Regents' Centers of Excellence for Mathematics and Science Education, presents the first of a series of conferences on the increasing role of quantitative literacy for daily life and productive citizenship.

Keynote Speaker: Dr. Bernard Madison, University of Arkansas

*"... the need for a high level of quantitative literacy ... is reinforced by individual freedoms, economic competitiveness, and the lack of economic safety nets.*

*QL offers tools for survival in a Darwinian society."*

*- Bernard L. Madison and Lynn Arthur Steen*

*"A Brief History of Numeracy and the National Numeracy Network"*

The Quantitative Literacy Conference will be held at  
COSI - Ohio's Center of Science and Industry  
333 West Broad Street  
Columbus, OH 43215  
9 AM - 3 PM  
Friday, February 13, 2009

The day's agenda will include...

... a keynote presentation by Dr. Bernard Madison, a recognized national expert in the area of quantitative literacy across K-16 school curriculum, who will set the context for the day's discussions.

... interactive panels with knowledgeable leaders from science, business, education and community sectors regarding curricular needs for quantitative literacy education in support of global awareness, workforce competitiveness and daily citizenship;

... opportunities for conference participants to learn about, and help shape, strategic actions toward strengthening and incorporating materials for quantitative literacy processes across Ohio's P-20 education system.

All organizations and individuals interested in learning more about the increasing role that quantitative literacy plays in all aspects of our students' and citizens' lives are welcomed to attend.

Conference participation will be limited to 200. A conference registration fee of \$25.00 is necessary to help offset costs of this special meeting. This fee applies to OMSC members as well as non-members.

For registration, speaker and panel updates, and additional information, visit the Ohio Mathematics and Science Coalition Web site at [www.OhioMSC.org](http://www.OhioMSC.org). To pre-register and be placed on the conference update list, contact the OMSC office at 216.916.6438, or send an email to Jamie Milne ([jmilne@ideastream.org](mailto:jmilne@ideastream.org)).



## Greater Cincinnati Council of Teachers of Mathematics Host Hot Topics in Mathematics

-- Holly Aug, GCCTM President

On Saturday, November 8<sup>th</sup>, the GCCTM hosted their annual mini-conference entitled "Hot Topics in Mathematics". Teachers, college professors and pre-service teachers attended sessions on topics such as the TI-NSpire Calculator, Geogebra, the Mimeoboard, and literature in Mathematics. All gathered to

hear Brad Findell, the Director of Mathematics Initiatives from the Ohio Department of Education, deliver the keynote address in which he addressed changes in secondary mathematics requirements, math coaching, and results of Ohio Achievement Tests. Participants were also able to browse products from Sheridan Worldwide. Special thanks to Debbie Kuchey for planning this event and to Mike Flick of Xavier's XCEED program for sponsoring the event.

## OCTM Scholarship Recipient

Zaia Thombre is a junior at Heidelberg College in Tiffin, OH. Her hometown is Toledo where she graduated from Ottawa Hills High School. When she graduates from Heidelberg she plans to teach math in an inner city school district and continue with her education to earn a doctorate. She hopes to be able to teach internationally as well. Her hobbies include reading, chess, and working with her group called Heidelberg Peer Educators to educate the campus and community about women's rights issues. This past summer Zaia was an international volunteer in Tanzania, Africa where she taught math and English in a primary school.



[more pictures from the OCTM Conference/NCTM Regional in Cleveland, October, 2008]



The Ohio Council of Teachers of Mathematics

Emalou Brumfield Affiliate Grant Application for Professional Development Programs  
presented by an affiliate group.

Application Date: \_\_\_\_\_

Affiliate Name: \_\_\_\_\_

Start date of project: \_\_\_\_\_ Completion Date of project: \_\_\_\_\_

Grant Contact Person:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Home phone: \_\_\_\_\_

Work phone: \_\_\_\_\_

Email: \_\_\_\_\_

Affiliate president:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Home phone: \_\_\_\_\_

Work phone: \_\_\_\_\_

Email: \_\_\_\_\_

Answer the following questions on separate paper

Rationale: What need is to be addressed?

Goal: How will this project meet the need identified?

Description: What are the components and implementation plans of this project?

Evaluation: What criteria will be used to assess the effectiveness of this project?

Budget: Attach a budget for this project.

When submitting this form write a couple paragraphs about the proposed program that  
can be used to publish in the OCTM Newsletter. After you have completed your project  
with these funds please send an article to our newsletter editor about your event.

Grant Contact Signature

Affiliate President Signature

\_\_\_\_\_

\_\_\_\_\_

Send this information to: Judy Gerwe, 534 Waycross Rd, Cincinnati, OH 45240-3936 or  
email jagmath@aol.com

## Ohio Roots of NCTM – Answers to NCTM Officers

--Dave Kullman, Miami University

### Presidents

Charles M. Austin (1920)  
Marie Gugle (1926)  
H. C. Christofferson (1938)  
Harold P. Fawcett (1958)  
Eugene P. Smith (1972)  
Joe Crosswhite (1984)

### Vice Presidents

Charles M. Austin (1927)  
Florence Brooks Miller (1935)  
Robert L. Morton (1941)  
Mildred Keiffer (1961)  
Eugene P. Smith (1962)  
George S. Cunningham (1966)  
Sarah Greenholz (1967)

### Directors

Marie Gugle (1920-23, 1928-34)  
Charles M. Austin (1921-27 1930-33 and 40-43)  
H. C. Christofferson (1934-38)  
A. Brown Miller (1939-45)  
Ona Kraft (1946-50)  
Harold P. Fawcett (1952-55)  
Harold C. Trimble (1963-66)  
Clarence Heinke (1966-69)  
Anna Marie Evans (1970-73)  
John L. Lawson (1973-76)  
Joe Crosswhite (1976-79)  
Marilyn N. Suydam 91980-83)  
Alan R. Osborne (1989-92)  
Linda M. Gojak (1996-99)  
Bert K. Waits (2000-03)  
Beatriz S. D'Ambrosio (2006-09)  
Frederick L. Dillon (2008-11)

Editor of *The Mathematics Teacher*  
Irvin H. Brune (1964-70)

## OCTM MATHEMATICS TOURNAMENT

February 28, 2009

Register Online at

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

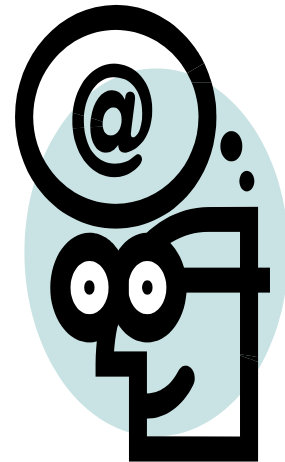
## PUZZLE CORNER ANSWERS

- Duane Bollenbacher

Level 1: 50. ( $9 \cdot 6 - 4 = 54 - 4 = 50$ )

Level 2: 2, 5, 17, 37 ( $1^2 + 1 = 2$ ;  $2^2 + 1 = 5$ ;  $4^2 + 1 = 17$ ;  $6^2 + 1 = 37$ ).  
NOTE:  $8^2 + 1 = 65$ , but 65 is NOT prime.

Level 3: a) 28  
b) 12, 18, 20, 24, 30, 36, 40, 42, 48, 54, 56, 60, 66, 70, 72, 78, 80, 84, 88, 90, 96



OHIO COUNCIL OF TEACHERS OF MATHEMATICS



OCTM NEWSLETTER  
MARGIE COLEMAN  
7452 D Turtle Lane.  
MAINEVILLE, OHIO 45039

**IMPORTANT!!** The March newsletter will be the **LAST** issue that will be mailed to you - OCTM is going green with a paperless newsletter! See page 4 for details.

**Important Dates:**

NCTM Conference – Washington, D.C.  
April 22-25, 2009

OCTM Conference – Cincinnati, OH  
November 12-14, 2009