

Illinois Council of Teachers of Mathematics

Serving Teachers of Mathematics and Computer Science

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President's Message February 2016 by George Reese, ICTM President

In this month's message I want to discuss two topics: moving ahead with the new ICTM website and reflecting on last October's conference.

If you have recently visited

ICTM.org, you will have noticed a new look and layout. The change happened rapidly, and there are impacts for all members. But first a few words about where we have been.

We cannot talk about the website without talking about Don Beaty. The website has been the focal point for ICTM visibility and communication, and Don has provided generous, long-term support for it. He has been the ICTM webmaster since 1999 and his work was way ahead of the curve. He created the home page, made pages for the contests, the IMT journal, and the awards, to name only a few. He procured the ICTM.org domain. If we were trying to get that domain today it would be expensive, if not impossible. He installed the Open Journal system that facilitated the IMT journal editing. A few years ago, Don created the experimental Members-Only site using the Drupal content management system and allowed us to upload materials from the conference, ICTM bulletins, and embedded videos of conference presentations. It showed us what was possible. Thank you, Don!

ICTM.org now links members to a new membership management site from a purchased service called, MemberClicks. Through this site ICTM members manage their membership more directly. The ICTM Board has been talking for years about making changes to the way the members learn about their current membership status. In the past, support for membership has been dispersed and one result of this is that communicating with members was sometimes difficult. For example, listserv subscriptions were not tied to membership, so some teachers thought their membership was up to date because they were receiving the messages, even though their membership had in fact lapsed. Our hope has been to have a single place to go for information about upcoming events, correspondence with other members, resources from the conferences, and forums for communication.

A committee of the Board of Directors investigated options and recommended that we purchase the MemberClicks license. This new interface will allow all members to:

- Find out the status of their membership at any time via a personalized web interface.
- 2. Renew their membership online via a credit card at any time.
- Keep up to date on ICTM upcoming conference and events via the calendar.

There are other capabilities of this system, and in the months ahead we will be exploring alternatives pertaining to: conference registration, feedback forms, special interest groups, and listservs. Changes are coming quickly and the implications of this change in membership management are cascading into existing web resources, listservs, and IMT journal management. Stay tuned!

As changes progress, here are the people to whom you can reach out to ask questions and offer help.

- Eric Bright is doing the hardest work getting the new membership site going. Any email sent to mailto:membership@ictm.org will go first to him.
- Yours truly, George Reese, is acting as liaison and meeting convener for the many people involved in these changes. Please feel free to convey questions, suggestions, constructive criticisms, and offers to help out directly to me via email: reese@illinois.edu.

Changing topics, the fall conference was an inspiring event. The keynotes were terrific and the collaboration with ISTA added a new energy. The exhibits especially benefited from the ICTM/ISTA partnership. The awards ceremony at the October Conference was especially moving for me as I became President while sharing the stage with my friend and mentor, Peter Braunfeld, who was receiving the award for Life Achievement in Mathematics. Peter personifies that joy of teaching and learning that has inspired all of his students. And considering his work and award impressed on me the challenge going forward of honoring and learning from the wisdom of a teacher like Peter, I will be working especially hard to empower the up and coming generation of leaders who have a whole new set of skills to bring to the rapidly changing education landscape.

Which leads back again to the pressing questions around change: How can we support the burgeoning groups of innovative young teachers in groups like Nepantla and the Complex Instruction Consortium? Can some of these groups and ICTM more broadly plug into the Math Twitter Blogosphere (MTBoS)? These questions can all be summarized by the following: How can we best support the young teachers, emerging in a very different educational, intellectual, and technological environment while honoring the traditions, wisdom, and experience of the veteran mathematics educators who have made ICTM the professional community of learning that has been so valuable to so many teachers? So, these are certainly questions with more than one answer and finding these answers together is how I see the work ahead for the Board of Directors.

Past President's Message



by Bob Mann
ICTM Past President

Hello Mathletes and welcome to 2016!

I had considered writing about resolutions for this issue but decided that by February, it may be better to address resources rather than resolutions. So, I have selected my Top 10 resources for Illinois math teachers in 2016 and have shared them below in the hopes that it will help you or your students achieve your

resolutions this year.

First, make sure to regularly check http://www.ictm.org/ for news, updates, and ideas. This site is undergoing some changes as we incorporate a new membership and media platform but you can find information here on the annual conference and regional conferences, common core resources, the Illinois Mathematics Teacher journal, and many other teacher-friendly links and ideas. In addition, make sure to like and follow ICTM on facebook. Annie Forest maintains this page and is excellent at keeping it refreshed with links to resources, lessons, videos, discussion points, and just neat and humorous items (did you know that $2016 = 2^{10} + 2^{9} + 2^{8} + 2^{7} + 2^{6} + 2^{5}$??!)

I encourage everyone to become a member of NCTM but, even if you are not a member, you can still access and use the terrific puzzles, problems, and interactive investigations at the NCTM illuminations site(http://illuminations.nctm.org/). In addition, you can use resources associated with NCTM's Principles to Action book at http://www.nctm.org/Conferences-and-Professional-Development/Principles-to-Actions-Professional-Learning-Toolkit/. Both sites contain materials for K-12 classrooms and the PtoA toolkit includes videos and transcripts of students engaged in problem solving tasks and the mathematical practices.

ISBE has also provided many resources for standards-aligned classrooms and these include the model math curriculum resources (http://www.isbe.net/common_core/htmls/math-models.htm) and the classrooms to action page (http://www.ilclassroomsinaction.org/). These pages contain lessons, assessments, implementation guides, and many materials related to PARCC and the new Illinois Learning Standards.

Our recent conference speaker Jo Boaler has information on the Growth Mindset at https://www.youcubed.org/ . This site contains research, examples, and tasks for effective mathematics classrooms. Our previous featured speaker, Dan Meyer also has a tremendous set of standards-aligned tasks and "set-up" related videos at https://docs.google.com/spreadsheet/pub?key=0AjIqyKM9d7ZYdEhtR3BJMmdBWnM2Y WxWYVM1UWowTEE&output=html . Another conference speaker, Eli Luberoff has provided teachers and students with a fascinating program at www.desmos.com. This graphing software is easy and fun to use and the graphs and artwork children create using this tool are simply amazing.

Finally, for 2016, a great resource for teachers to use in helping prepare students for the PARCC assessments is the 2015 PARCC released items which can be found at https://prc.parcconline.org/assessments/ parcc-released-items. This site contains released items for ELA and Mathematics for all the tested grades and includes scoring guides and keys. This is an incredible resource for test preparation as well as for Mathematics Practices implementation.

I hope you find these online resources valuable as you pursue your academic and classroom goals for 2016 and beyond. ICTM is an organization of, for, and by educators and our ability to share resources, ideas, and challenges hopefully benefits the individual members, the membership as a whole, and ultimately the education of all of our students. Have a wonderful 2016 and best wishes for your classrooms and achieving your resolutions!

Board Chair Report



by Jackie Murawska, ICTM Board Chair

Hello ICTM members! At the December 5, 2015 Board meeting in Bloomington, most of the board's time was spent discussing the ICTM Annual conference, our mission statement, and the new ICTM website. First, the board reflected on the most recent ICTM Annual Conference. Attendance included 808 ICTM participants, and 2015 marked the first

year as a concurrent conference with ISTA (Illinois Science Teachers Association). The board discussed plans for next year's conference, which will be held in Peoria, Illinois on October 7-8, 2016. This will again be a joint venture with ISTA. Much discussion ensued on options for efficient conference planning and financial implications of any changes. A motion was approved for the board to continue the partnership with Eastern Illinois University to help run the 2016 conference.

The board also examined the mission and vision statements of ICTM in a fruitful discussion that centered on how ICTM is addressing its mission through its organization and services. Core questions were pondered, including questions about ICTM's purpose, membership, priorities, and how the board's activities could continue to align with ICTM's mission and vision.

In the afternoon working session, the board discussed the new ICTM website and the membership functionality provided by the new MemberClicks service. Many details were ironed out regarding the transition to this new system. A motion to eliminate institutional membership and only have individual membership passed. Lastly, a motion that members of the Award Selection Committee may nominate people for awards as long as they excuse themselves from voting within that category was also passed. The next Board meeting will be a virtual meeting and is scheduled for February 13, 2016.

YOUR LOCAL



Regional Conference

WIU-Macomb

Friday April 8, 2016

For more information, contact: d-lafountain@wiu.edu

www.wiu.edu/cas/math/teachers conference

SIU-Carbondale

Thursday February 18, 2016

For more information, contact: jbecker@siu.edu

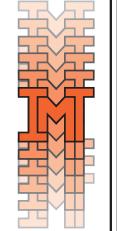
Illinois **Mathematics** Teacher Journal

call for articles

The editors invite submissions from both new and experienced authors, and accept articles on a range of topics, including:

- · innovative classroom activities and lessons
- applications to the classroom of pedagogical research and best practices
- examples of implementing standards
- reviews of recent books on pedagogy
- any other articles that will support the professional development of ICTM members

Please send submissions to imt@ictm.org.



Math Musings with Martin

Q: Which base angle of the isosceles triangle is most attractive?

A; They're both acute!

ICTM List Serve Update

Do you receive e-mails from the ICTM List Serve? If you answered no, then consider subscribing today. Subscribing to the List Serve is one benefit of your ICTM membership. E-mails sent through the List Serve often give information about upcoming conferences, details about professional development opportunities, information about ICTM awards and scholarships, links to math related websites and news articles, and questions/ announcements from other math teachers around the state. All subscribers to the List Serve can send out messages to the recipient list. To sign up, visit www. ICTM.org and sign-in to the member login on the left hand side. You can create a new account if needed using your ICTM member number. Once logged in, select "List Serve" under the Membership tab. Here you will find simple directions about subscribing and how to send messages. Subscribe today!

NCTM Reminder:

Help your professional organizations support each other! When renewing your National Council of Teachers of Mathematics Membership online, don't forget to checkmark the Affilate Rebate box and designate ICTM as your affiliate organization. NCTM's Affiliate Rebate program provides a per-member rebate to ICTM based on this feedback. Your attention to this detail helps provide support for your local professional organization.

ILLINOIS COUNCIL OF TEACHERS OF MATHEMATICS SCHOLARSHIPS IN MATHEMATICS EDUCATION

Do you know someone deserving of an ICTM Award?

My name is Eric Bright, newly elected ICTM Board Member and ICTM's Excellence in Middle School Mathematics award winner for 2012. I just want to tell you that being the recipient of that award changed my life. Really! Besides the honor of being selected for the award, my career path changed as I realized that ICTM was a place for me to be an agent of positive change for mathematics education in Illinois. Receiving that award emboldened and empowered me to not just change my classroom for the better but to strive for positive changes in the world at large. I've been working on that ever since.

The ICTM award really just meant the world to me, and you can bestow that same honor and affirmation on another deserving educator. And there's an award for everyone at every stage in their career. There are awards for excellence in mathematics teaching at the elementary, middle school, secondary,

and post-secondary levels as well as a Promising New Teacher Award. The Max Beberman Award honors someone who directly contributes to mathematics education by training future teachers, writing curriculum, or performing educational research. The Lee Yunker Award is for exemplary leadership in mathematics education. The Fred Flener Award honors those who provide opportunities for students to explore mathematics outside of the classroom. Finally, the Distinguished Lifetime Achievement Award is for those who have dedicated their life's work to this great profession.

You can find all of the specific criteria for each award on the ICTM website, and the nomination process is quick and simple. Nominate that special mathematics educator in your life to show them that they truly have made a difference!

The award criteria, nomination process overview, and application form can be found at: http://www.ictm.org/ictmawards/

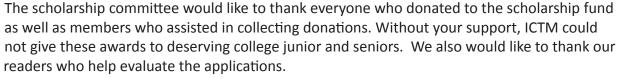
ILLINOIS COUNCIL OF TEACHERS OF MATHEMATICS SCHOLARSHIPS IN MATHEMATICS EDUCATION

As Scholarship Co-Chairs, one of our favorite things to do is give away scholarships to promising young mathematics teachers either in their first year of teaching or their senior year in college. They apply in the spring while they are still juniors or seniors if they are mathematics majors or elementary education majors with a concentration in mathematics.



Maria Christina Gianni

This year we awarded \$1500 each to Maria Christina Gianni from the University of Illinois at Champaign-Urbana teaching her first year at Gombert Elementary in Aurora, and Amy Wieting from Illinois State University where she is a senior. These deserving young ladies show a great deal of potential to become future ICTM stars.





Amy Wieting

If you did not donate and would like to, please send a check payable to ICTM Scholarship. The check can be mailed to Sue and Randy Pippen, 24807 Winterberry Lane, Plainfield, IL 60585.

Applications for scholarships may be made by visiting www.ictm.org and click on scholarship. All application information and forms are downloadable. Please reach out and encourage college juniors and seniors to apply for the ICTM Scholarships, due each year in March. There is a downloadable application with fill-in blanks to make it easier.



ICTM 2015 Award Recipients, pictured at left:

Left to right: Tina Novella, Richard Kaplan, Leona Mirza, Martha Reilly, Peter Braunfeld, Martha Eggers, Danyel Larsen

ICTM 2015 Scholarship Recipients, pictured at right: Maria-Christina Gianna, *University of Illinois at Urbana-Champaign* and Amy Weiting, *Illinois State University*





#LeydenPride *

ICTM 2015 New Board Officers, pictured at left:

Left to right: Jeremy Babel, *Director 9-12*, Denise Brown, *Director EC-6*, Sendhil Revuluri, *Director At-Large*

Your ICTM Board of Directors, pictured at right:

Front: Eric Bright, Sendhil Revuluri, Martin Funk, Zach Herrmann

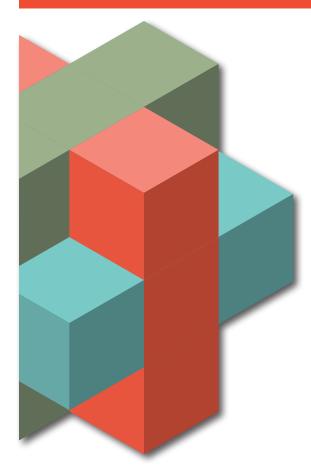
Middle: Lannette Jennings, Anita Reid, Carly Morales, Denise Brown

Back: Bob Mann, Jackie Murawska, Jeremy Babel, Adam Poetzel (retired) and President George Reese

Not pictured: Craig Cullen and Peter Wiles



CONFERENCE CORNER



ICTM 65th Annual Conference:

What's MATH Got to Do With It?

WOW, what an event! Thank you to all who attended the ICTM 65th Annual Conference. Jo Boaler and Eli Luber-off gave a dynamic start to two days of professional development, networking and engagement to reinvigorate your math teaching. We hope you enjoyed the event as much as we did!

If you missed this year's ICTM Annual Conference, mark your calendar and start planning now to attend next October 7-8, 2016, when we return to Peoria. Stay tuned to **www.ICTM.org** for updates and breaking news on highly-anticipated Guest Speakers for the 2016 Annual Conference!

TELL US WHAT YOU THOUGHT!

If you haven't already responded to an email invitation to complete a conference survey, you can do it now at http://eiu.co1.qualtrics.com/SE/?SID=SV eOMbNRJn89Ca5UN

Call for **Speakers:**



Illinois Council of Teachers of Mathematics

The Premier Organization of Mathematics Educators in Illinois

Take Advantage of the Opportunity to Present!

In 2016 the ICTM annual conference will be held at the Hotel Pere Marquette in Peoria, IL. Mathematics education has encountered considerable change in recent times and ICTM is here to provide comprehensive effective insights, practices, and activities to effectively deal with these changes.

Please consider joining over 100 other mathematics professionals who are presenting either a 60-minute talk or a 90-minute workshop in Tinley Park. A featured speaker will provide a keynote presentation to open the conference on Friday morning. Presentations and workshops will follow.

66th Annual ICTM Conference October 7-8, 2016, Peoria, IL

Be part of this exciting program and contribute to the mathematics education profession by visiting the ICTM website (http://www.ictm.org).

Deadline for proposal submission is March 15, 2016

Access the Speaker Proposal Form at: http://www.ictm.org/SpeakerProposal.htm.

Be a part of this great event. Submit your proposal today!

Public Health Strategy

Task Card

Submitted by: Zachary Herrmann Twitter: @zachherrmann Email: Zachary.Herrmann@gmail.com

You are a public health official in charge of a remote rural area with a population of 1000. It is believed that any given individual has a .001 chance of contracting a specific deadly disease each month. This disease has been plaguing the area for many generations. If gone untreated, people typically only survive living with the disease for 3 months

A pharmaceutical company sells tests for the disease. Two versions of the test are available:

- 1. An expensive version of the test accurately detects the disease 99% of the time for those who actually have the disease. However, it also falsely gives a positive reading 2% of the time for people who don't have the disease. This version costs \$50 per test.
- 2. A less expensive version of the test accurately detects the disease 93% of the time for those who actually have the disease, and falsely gives a positive reading 30% of the time for those who don't have the disease. This version costs \$15 per test.

Both tests require a week worth of lab work to get the result.

If a person is believed to have the disease, the treatment, which is 90% effective, costs \$500 if identified within the first month of contracting the disease. The treatment is 85% effective and costs \$1000 if identified within the second month of having the disease.

As a public health official, it is your duty to set standards and procedures for this community. Your budget is \$240,000 per year. Your set of standards and procedures should outline your public health strategy for 1) who gets tested and when, 2) who gets retested, 3) who gets treated, 4) anything else you think is relevant.

Your set of standards and procedures should include relevant probability calculations and expected values, along with any other mathematically important justification for your procedures. How much is your plan expected to cost? How many lives is your plan expected to save? How many lives is your plan expected to sacrifice? Make your mathematical and ethical assumptions clear and explicit.

FLORIDA 2016!

To drive or not to drive, that is the question!

Your teacher won a free one-week stay in a condo in Bonita Springs, Florida! But,

transportation is not included. His wife wants to fly, but he thinks driving will be a lot cheaper. Help your teacher find out which makes more sense for his family of five.

Trip details

1,332 miles from Franklin Park, IL to Bonita Springs, FL.

Vehicle 2014 Chrysler Town & Country

Last gas fill-up, \$34.87 for 16.8 gallons of gas which covered 320.9 miles travelled.



The last time your teacher's family took a driving trip was to the Wisconsin Dells. This was 180 miles and took us 3 hours and 15 minutes.

Using the above information...

- 1. Determine a reasonable estimate for the cost of driving from Franklin Park, IL to Bonita Springs, FL.
- 2. How long will the drive take us?

Show your work here...

Should they fly instead?

Using sites like <u>travelocity.com</u> or <u>expidia.com</u>, determine the cost of flying to help me decide which is better for my family.

Notes on this problem:

It is based on a true story, what I also tell my students is that a week before winning the condo stay, we just pre-paid for a trip to Disney World, so I really didn't want this free trip to cost a ton of money.

We have access to computers, but that is only necessary for part 2 of the problem. A couple of connected devices or phones would be sufficient for checking prices.

Students often don't consider:

- The drive home. I tell them I'm not moving to Florida.
- When considering the flight option, the need to rent a car for the week.
- When considering the drive option, the possibility of a hotel stay.
- What about food?

Depending on the group or students, I may let any of the above slide (except considering one way costs, I'm not moving to Florida).

This can be used at various times in your curriculum depending on your goals.

Possible topics covered,

- rates/unit rates
- Linear equations
- Using tables of values to help solve a problem.

I use it to start of a summer course to encourage communication and discuss problems solving techniques.

Your ICTM Board Representatives

George Reese President

University of Illinois-MSTE

George Reese President-Elect

University of Illinois - MSTE

Marshall Lassak Conference Coordinator Eastern IL University

Jackie Murawska

(2013-16)**Board Chair**

Saint Xavier University

(2015-17) Sendhil Revuluri Director-at-Large

University of Illinois at U-C

(2014–15) Zachary Herrmann (2014–17) Jeremy Babel Director-at-Large

Evanston Township High School Leyden HS

Craig Cullen Director, University/ Community College Illinois State University

Peter Wiles

Director, University/ Community College Eastern Illinois University

(2015–18) Martin Funk Director 9-12

New Trier High School

Director 9-12

(2013-16) Anita Reid (2014-16)

Director 5-8

Lewistown Central High School

Eric Bright (2014-17)

(2014-17) Director 5-8

Charleston Middle School

Please contact any of the following ICTM board members if you have any questions or concerns:

President George Reese MSTE Office

CTM Bulletin Volume XXXVII

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Board Chair

Jackie Murawksa Saint Xavier University 3700 West 103rd Street Chicago, IL 60655 murawksa@sxu.edu

Conference Director Marshall Lassak mblassak@eiu.edu

(2013-16) Carly Morales

(2015-18) Denise Brown

Director EC-6

Director EC-6

Regional Office of Education #38

Carruthers Elementary School

(2014-17)

(2015-18)

Directors: Anita Reid/Denise Brown Submissions from:

Reports:

Eric Bright Denise Brown Jackie Murawska Robert Mann George Reese Randy & Sue Pippen

Activities: Jackie Murawska

Sendhil Revuluri

Conference Info: Marshall Lassak

Produced by: Eastern Illinois University School of Continuing Education

For ICTM Membership Services, please contact:

ICTM Membership

c/o School of Continuing Education Eastern Illinois University 600 Lincoln Avenue Charleston, IL 61920-3099

phone 800-446-8918 or 217-581-5116 e-mail ictm membership@eiu.edu

Join or Renew Online at: https://ictmservices.org

Why You Should Join

- Connect with other educators working to improve mathematics education.
- Contribute to mathematics education.
- Stay current about regional, state and national meetings.
- Attend conferences at reduced rates.
- Receive the ILLINOIS MATHEMATICS TEACHER. a journal with articles about teaching and learning mathematics at levels from kindergarten to college.
- Receive the ICTM BULLETIN with classroom activities, news and information about professional development opportunities.

CALL FOR ARTICLES Can you help?

The Illinois Mathematics Teacher is always looking for new reviewers and articles. If you would like to volunteer as a reviewer or have an article to submit, please contact the editors at imt@ictm.org.

We look forward to hearing from you.

ICTM MEMBERSHIP APPLICATION FORM

Clip	out this page and mail it with your payment to the	he address belo	w.			
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Regio	onal Office of Education					
_	M Member? Yes	□ No		4.4	DI .	d ICTA
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	Mail this application and a check or money or	der payable to:	EAST	ERN ILLINOIS	UNIVERSIT	Y
2MAR2010	ICTM Membership School of Continuing Education Eastern Illinois University 600 Lincoln Avenue Charleston, IL 61920-3099		Tot	al Enclosed: \$		



ICTM Spring Regional Conferences

Southern Illinois University at Carbondale Western Illinois University, Macomb Thursday, February 18, 2016 Friday, April 8, 2016

NCSM Annual Conference

San Francisco, CA April 11-13, 2016

NCTM 2015 Annual Meeting and Conference

San Francisco, CA April 13-15, 2016

ICTM 2016 Math Contest

University of Illinois at Urbana-Champaign May 7, 2016

