President’s Message
April 2016 by George Reese, ICTM President

Happy Spring to everyone in ICTM and to all math teachers who read this! There is change in the air at ICTM, and I hope that it helps us all to move toward achieving a growth mindset. Here are some of the changes that you can readily see in our organization:

Membership
You have probably noticed the new look of the ICTM.org website. We are still working out the kinks, but you can now easily check your membership status and renew through the site. This was our main goal in transitioning to a new system.

Elections
The election for Directors on the ICTM Board is open the first week of April. Be sure to Login and VOTE!

The ICTM list and email blasts
If you are receiving emails from ictm@lists.mste.illinois.edu, then you are on the ICTM listserv. Being on the list DOES NOT mean that you are a member of ICTM. That list has been active for the past thirteen years and over that time many people have signed up to find out what ICTM is doing or to get the updates on mathematics education that Jerry Becker posts regularly to his very large list of individual and group recipients. At times, there are discussions of events and posts on ideas, but it has not been active as a discussion forum.

We hope that all members of that listserv will join ICTM, and I will post reminders and encouragements to do so from time to time. However, if you ARE a member of ICTM, you will be the first to receive important information about the organization through the email blasts that are sent out by our membership chair, Eric Bright. These go only to the current ICTM members. The Board has agreed that these should only be sent at a rate of once or twice per month unless there is an urgent need for more updates.

On a personal note, I had the chance to attend the MMC (Metropolitan Math Club) conference for workshops for the first time this year. I attended a wonderful session on Number Talks and another on Diversity in the Math Classroom. I especially remember the flash talks in the afternoon, where, in ten short minutes, I learned the Russian Peasant Algorithm for multiplication from Paul Christmas. I was inspired too, to model a growth mindset, by trying something new and joining the MathTwitterBlogosphere (MTBOS). You can follow me on Twitter @mstegeorge. ICTM’s Twitter handle is @MathICTM.
Happy spring, ICTM members! At the February 13, 2016 board meeting, which was held virtually, the board had a wonderfully productive meeting which focused on nominations, NCTM affiliate news, the 2016 ICTM Annual Conference, membership, and progress toward ICTM becoming an official PDH provider through ISBE. First, a motion to approve the slate of nominees for the April 2016 ICTM elections passed, and a motion that the nominations committee finalize the nominations process also passed. Then, the board was fortunate to have Jean Lee, Central 1 Representative of the NCTM Affiliate Services Committee, join the conversation and update the ICTM board on upcoming events and opportunities available through NCTM.

Next, the board discussed details for the 2016 ICTM Annual Conference to be held in Peoria, IL on Oct. 7-8, 2016. Marshall Lassak, ICTM Conference Chair, joined the conversation and provided a summary of conference planning and logistics, and the coordination with ISTA (Illinois Science Teachers Association). Since the NCTM Regional Conference will be held in Chicago Nov. 29-Dec. 1, 2017, ICTM will not be holding a state conference in 2017. Thus the board is looking ahead to finalize the location for the ICTM 2018 Conference. The board also heard from Carol Nenne, ICTM Contest Chair, who provided a summary of the regional contest plans.

Membership functionality provided by the new MemberClicks service was also discussed again during this meeting to continue to iron out details in the transition to this service. A subcommittee on MemberClicks and Technology was formed to examine a few remaining issues and report back to the board at the next meeting. Similarly, a subcommittee on Membership was formed to discuss broader issues of membership strategy as related to ICTM’s vision and mission and will also report back to the larger group at the next board meeting. Lastly, an Advocacy subcommittee was formed to address state and national issues of advocacy and ICTM’s potential role in these issues. These ad hoc subcommittees/task forces will allow the board to continue addressing important issues between scheduled meetings.

Progress has been made regarding ICTM’s application to become an official PDH provider through ISBE, and the necessary paperwork is being compiled. The next board meeting will be in Bloomington, IL and is scheduled for April 30, 2016.

Golden Boy
The score was tied at 1 to 1
The Math Team needed just one more run
Up to the plate walked Fibonacci
Spitting chew and itching crotchy
He took the count to 3 and 2
5 total pitches was too few
So he fouled two back to get to 8
Called for time and stepped off the plate
The number 13 across his back
Age 21 and talking smack!
34 homers so far this year
55 total in his career

The pitch flew in at 89 miles per hour
He sent it right with lots of power
144 feet and it’s still going
At 233, it started slowing

At 377, it cleared the fence
And the Golden Boy had passed this test
A batting average of .618
Fibonacci is Gold and Great!

I hope these silly couplets bring a smile to your face and possibly a brief diversion during this often hectic season and maybe, if you get the time, you can share this poem with your students and generate discussion on the relationship of these numbers and the legend of Fibonacci!

May you have a golden season and a bright end of the school year.

Dr. Bob Mann
ICTM Past-President
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 Affiliate 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.

Math Musings with Martin

The worst part of a sin x infection is that it comes back periodically.

Submitted by Martin Funk, ICTM Director 9–12
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: https://ictm.memberclicks.net/ictm-awards

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.

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.

The scholarship committee would like to thank everyone who donated to the scholarship fund as well as members who assisted in collecting donations. Without your support, ICTM could not give these awards to deserving college junior and seniors. We also would like to thank our readers who help evaluate the applications.

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 https://ictm.memberclicks.net/ictm-scholarships 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 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:

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


Be a part of this great event. Submit your proposal today!
Scalar Multiplication in Grades K-5

Denise Brown
Carruthers Elementary School
Murphysboro, IL

dbrown@mhs.org

Students in kindergarten through fifth grade must develop an understanding of multiplication in a variety of contexts. This understanding leads to successful problem solving in middle school and high school mathematics. Often problems given to lower grade students focus on multiplication as an additive operation. When a student’s understanding of multiplication is limited to understanding multiplication as an additive operation they can become very confused years later in advanced math courses. In fact, I believe it handicaps students as soon as 5th grade when they are expected to multiply fractions by fractions and cannot extend this additive understanding to the task because it does not apply. One of the ways, we as elementary teachers can help correct this problem, is to give students opportunities to explore other meanings of multiplication. A very useful context for multiplication is scalar multiplication (one factor scales or sizes another). An understanding of scalar multiplication sets the stage for student success in Algebra and beyond.

This set of problems for k-5 students gives examples of appropriate scalar multiplication problems at each grade level. Although the CCSS standards do not address multiplication until grade 2, younger students are capable of understanding multiplicative concepts if given the opportunity. These problems are intended as an example of the k-5 continuum for scalar multiplication. Please read through all the problems thinking about the connections between grade levels and how your students’ work will connect to the next grade level.

**Kindergarten and 1st grade:**
Present k-1 students with problems that explore the concept of twice as much and three times as much.
Introducing students to the language at this age is most important. Some students this age are not ready to think multiplicatively; however, many are ready. By providing the language and opportunities for young students to develop this type of thinking students will develop a deeper conceptual understanding of place value and operations. Keep problems simple and concentrate on the action of the problem. Look for students who understand that they don’t have to individually count but can copy the original quantity to arrive at a solution.

**Kindergarten**
Tomas has one tootsie roll. His sister Mya has twice as many tootsie rolls. How many tootsie rolls does Mya have?

Sydney is having a birthday party. Her mom said she can invite 3 friends. She wants to invite twice as many friends. How many friends does Sydney want to invite?

**First Grade**
If Mrs. Beckman’s room is 25 floor tiles wide and Mrs. Kilquist’s room is twice as long as Mrs. Beckman’s. How many tiles long is Mrs. Kilquist’s room?

**2nd-3rd grades:**
Students at this age are typically taught that multiplication is repeated addition. However, this conceptualization interferes with understanding other contexts of multiplication. For example, in fifth grade students must learn to multiply fractions. What addition are they repeating to solve 1/10 times 100? The repeated addition conceptualization will handicap students in later grades by limiting their understanding of multiplication. Giving students in second and third grade problems which also explore scalar multiplication will help them develop the
ability to understand higher level problems involving multiplication. Continue to develop the language of three times as many etc.

Solving problems which require doubling or tripling the length of a rectangle and relating this change to the area would help develop these concepts as well as the problems below involving fractional amounts.

2nd Grade
Mr. Winters is two times taller than his daughter Aubrey. If Aubrey is 3 feet tall, how tall is Mr. Winters?

If Mrs. Brown’s dog Skippy is two and half feet tall and Mrs. Brown is twice as tall as her dog, how tall is Mrs. Brown?

3rd Grade
If one story of a building is ten feet, how many feet tall is a 10 story building? How many feet tall is a 15 story building? 40 story building? How do you know? Write a number sentence to represent your thinking.

If a building is 350 feet tall and each story(floor) is ten feet, how many floors does the building have?

4th-5th grades
By the end of 5th grade students are expected to fluently add, subtract, multiply, and divide with whole numbers, fractions, and decimals. And, by the end of sixth master ratio and proportionality. It is crucial that 4th and 5th grade teachers develop student understanding of scalar multiplication in order for sixth grade students to develop ratio and proportional conceptual understanding. The following problems will help students develop this understanding as one factor is scaled by tenths, hundredths and thousandths.

4th Grade
The St. Louis Gateway Arch is 630 feet high. Your assignment is to construct a model of the arch which is one hundredth of the original size. How tall will the model be? How do you know? Explain the process you used to arrive at your solution. Show your mathematical thinking with a number sentence representing your work.

5th Grade
Joanne is building a model of the Bank of America tower in New York City that will fit on her desk at school. The skyscraper is 1,200 feet tall. She is planning to use 3 inch toothpicks to create her model. She is trying to decide whether her model should be 1/10 of the original or 1/100, or 1/1000? Calculate how tall each size model would be if scaled down. Which size model do you think would best fit on her school desk? Why? Explain the process you used to arrive at your solution. Write a number sentence(s) that support your reasoning.
Geometry and Coding

Here is an activity that gives students an opportunity to use simple, free coding tools to explore computer science in the context of geometry. This lesson was inspired by my colleagues Kris Kelsh and Julie Bar.

0. Prerequisites

Students should be familiar with regular polygons and exterior angles. They do not necessarily need to have any prior coding experience.

1. Coding Environment

We will be using a block-based coding environment, either Scratch or Snap. Both of these free softwares can be used in a web browser, but students need to create a (free) account if they want to save their work. At my school, we used Snap in the classroom because it works with IPads (and Scratch did not), but you can Scratch in the computer lab. For simplicity, this lesson will be written to be coded using Snap but can very easily be reworked for Scratch.

- [http://snap.berkeley.edu/](http://snap.berkeley.edu/) -- start by scrolling down and clicking the Run Snap Now button.
- [https://scratch.mit.edu/](https://scratch.mit.edu/) -- start by clicking the Try it Now button.

2. Coding Shapes

Help students open the program on their computers. This lesson is written as a guided discovery activity. In the following worksheet, students do the lesson by trying the activities and answering the questions.

Here are the answers to the questions posed in the lesson:

1. a. The sprite moves 10 steps forward in its current direction
   b. Same as before, the sprite moves 10 steps forward in its current direction
   c. The sprite turns then moves. It seems to be following a circular path.
   d. The sprite still turns then moves. It now makes a large square path.
   e. The path of the sprite becomes visible. A square is drawn.
   f. Four times

2. a. Repeat 6 times to make 6 sides
   Turn 60 degrees (not 120 degrees).
   The sprite turns through the exterior angle, not an interior angle.
   So 360/6 = 60 degrees
   b. Repeat 8 times to make 8 sides
   Turn 45 degrees (exterior angle: 360/8 = 45 degrees)
   c. Repeat 5 times to make 5 sides
   Turn 72 degrees (exterior angle: 360/5 = 72 degrees)
   d. Since 360/n = 15 gives us n = 24, we will need to set the repeat to 24.

3. b. The solution to the extension is block of code is at the right.
1. Getting Started: Open the coding environment on your computer. When you open the program, there will be a sprite in the middle of a blank screen (the sprite is the arrowhead image that we will be writing code to move about the stage). On the left, you will see a panel with coding blocks, currently showing blue “Motion” options. Click on these blocks and notice how the sprite reacts.
   
a. What happens when you click on the “move 10 steps” block?

b. Drag the “move 10 steps” block into the scripts window, between the blocks and the stage. What happens when you click on the “move 10 steps” block there?

c. Add a “turn right 15 degrees” block to the scripts window (the “right” turn is indicated by a curving arrow). Join the “move 10 steps” block to the bottom of the turn right 15 degrees block by matching the notches in the blocks. Click the block pair several times. What happens?

d. Change the value on the turning block by replacing the number 15 with the number 90. Also, change the number of steps from 10 to 100. What happens now?

e. Switch the blocks window from blue motion blocks to teal pen blocks. Drag a “pen down” block into the scripts window and attach the block pair from the previous step to the bottom of the “pen down” block. How does this change the program?

f. Switch the blocks window from teal pen blocks to gold control blocks. Drag the control block “when I am clicked” into the scripts window and attach the previous blocks to it. This causes the code to run whenever the sprite is clicked.

   We will now complete drawing the square. Rather than bring three more pairs of turning and stepping blocks in, we will repeat the ones that we have.

   How many times will this pair of turning and stepping need to run?

g. Drag a “repeat 10” block into the scripts window. Change the 10 to 4. Remove the block trio of pen down, turn and move blocks from their current position and put them inside of the “repeat” block. Attach this repeat block to the “when I am clicked” block.
Your code should look like this:

The square should be drawn every time the sprite is clicked, even if it is moved to a new location. To clear out the square that have been drawn, click the “clear” block found in the pen blocks.

2. Drawing Polygons: Now that you know how to make a square, can you make other polygons?
   a. Hexagon – what two changes will you need to make to your code to make a hexagon?
   b. Octagon – what changes will you need to make to your code to make a octagon?
   c. Pentagon – what changes will you need to make to your code to make a pentagon?
   d. Change the angle to 15 degrees. How many sides will you need to complete the shape?

Run the code to verify your result. You may want to change the number of steps back to 10 to see the shape.

3. Extensions and challenges:
   a. Play with the pen attributes by changing the pen width and color.
   b. Let the program ask for the number of sides of the polygon it wants. In the light-blue sensing blocks, drag a “ask ‘what’s your name’ and wait” block in. Replace “what’s your name” with “how many sides?” The user’s answer will be stored in the “answer” block. Use this value to replace the number in the “repeat” block. The program will also need to calculate the angle of the turn. You can find in a division block with the green operators blocks to make this calculation.
   c. Make a new group of blocks which will draw an isosceles right triangle. You may not want to create a loop for this, but you may need to calculate how to return to the starting position. Use blocks from the green operators blocks to perform the calculations.
Teachers and afterschool leaders: Learn to be a CryptoClub leader! Cryptography, the science of secret messages, is an intriguing STEM topic and an important application of mathematics. Leaders need not be mathematics teachers – just enthusiastic about math.

About CryptoClub: A typical CryptoClub program lasts about 16-20 sessions and uses games, treasure hunts, and other informal activities to engage students in cryptography and mathematics. It applies topics from the middle school curriculum, such as decimals and percents, division with remainder, common factors, negative numbers and pattern recognition. It also includes computer cryptography games and other activities from the CryptoClub website.

At the workshop: The workshop will provide background in the mathematics and cryptography content and give leaders a chance to experience CryptoClub games and activities while discussing pedagogical issues of leading a program. No prior cryptography experience required.

Video Tutorial Training Workshop July 20-21: Participants at the July 18-20 workshop may opt to stay an additional day to learn about producing student-made tutorials in CryptoClub.

Registration: There is a $150 fee for a Leader-Training Workshop and a $50 fee for the Video Tutorial Training Workshop. For more information and to register for a workshop go to:

www.math.uic.edu/CryptoClubProject

The CryptoClub Project is funded by the National Science Foundation, Grants #0840313 and #1311977.
Your ICTM Board Representatives

George Reese (2015–17)
President
University of Illinois-MSTE

George Reese (2014–15)
President-Elect
University of Illinois - MSTE

Marshall Lassak
Conference Coordinator
Eastern IL University

Jackie Murawksa (2013–16)
Board Chair
Saint Xavier University

Sendhil Revuluri (2015–18)
Director-at-Large
University of Illinois at U-C

Zachary Herrmann (2014–17)
Director-at-Large
Evanston Township High School

Craig Cullen (2013–16)
Director, University/
Community College
Illinois State University

Peter Wiles (2014–17)
Director, University/
Community College
Eastern Illinois University

Martin Funk (2013–16)
Director 9–12
New Trier High School

Jeremy Babel (2015–18)
Director 9–12
Leyden HS

Anita Reid (2014–16)
Director 5–8
Lewistown Central High School

Eric Bright (2014–17)
Director 5–8
Charleston Middle School

Carly Morales (2014–17)
Director EC–6
Regional Office of Education #38

Denise Brown (2015–18)
Director EC–6
Carruthers Elementary School

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

President
George Reese
MSTE Office
505 East Green Street
Champaign, IL 61820
reese@illinois.edu

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

Conference Director
Marshall Lassak
mblassak@eiu.edu

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 address below.

☐ New Member  ☐ Reinstatement  ☐ Renewal  ☐ Change of Address

Name ____________________________ Member Number ____________________________

Check preferred mailing address. Please complete BOTH columns.

☐ Home

Street Address: ____________________________
City: ____________________________
State: ____________________________
Zip Code: ____________________________
Phone: ____________________________
Email: ____________________________

☐ Work

Street Address: ____________________________
School Address: ____________________________
City: ____________________________
City: ____________________________
State: ____________________________
State: ____________________________
Zip Code: ____________________________
Zip Code: ____________________________
Phone: ____________________________
Phone: ____________________________
Email: ____________________________

Regional Office of Education

NCTM Member?  ☐ Yes  ☐ No

Profession: (check only one)
☐ EC-3 Teacher  ☐ Remedial  ☐ Teacher Education
☐ 4-6 Teacher  ☐ Gifted  ☐ Assessment
☐ Jr. High/Middle Teacher  ☐ Teacher Education  ☐ Certification
☐ Sr. High Teacher  ☐ Gifted  ☐ Multicultural Education
☐ Special Education Teacher  ☐ Assessment  ☐ Teacher Evaluation
☐ Community College  ☐ Gifted  ☐ Professional Development
☐ College/University  ☐ Gifted  ☐ Scholarship
☐ Administration  ☐ Gifted  ☐ Technology
☐ Retired  ☐ Gifted  ☐ Research
☐ Student  ☐ Gifted  ☐ Math Contest
☐ Institutional Member  ☐ Gifted
☐ Other  ☐ Professional Development
☐ Other  ☐ Scholarship

Interests: (check up to three)
☐ Remedial  ☐ Gifted  ☐ Teacher Education
☐ Teacher Education  ☐ Assessment  ☐ Certification
☐ Assessment  ☐ Multicultural Education  ☐ Teacher Evaluation
☐ Multicultural Education  ☐ Professional Development  ☐ Scholarship
☐ Teacher Evaluation  ☐ Technology  ☐ Research
☐ Professional Development  ☐ Math Contest

Please note, the ICTM membership year ends on November 5, and memberships are not prorated. However, memberships purchased between April 1 and November 4 will be active for the full membership cycle purchased, PLUS a grace period between the date of purchase and November 5, the beginning of the next full membership cycle.

Dues for ICTM Membership:

Regular member
☐ one year $35
☐ three year $100
☐ five years $160

Student Member  (This rate is reserved for full-time, baccalaureate pre-service students only)
☐ one year $20

(Institutional Member  (The name of classroom teacher in the blank at the top of this page will be used as the contact teacher for the institutional membership. Please make sure to indicate a contact person.)
☐ one year $100

If recruited as a new member by a current member, please list the recruiter’s name ____________________________

Mail this application and a check or money order payable to: EASTERN ILLINOIS UNIVERSITY

ICTM Membership
School of Continuing Education
Eastern Illinois University
600 Lincoln Avenue
Charleston, IL  61920-3099

Total Enclosed: $ ____________________________

2MAR2010
ICTM Spring Regional Conferences
Southern Illinois University at Carbondale
Thursday, February 18, 2016
Western Illinois University, Macomb
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