

New Executive Director Announced!

- Kim Yoak, OCTM President



On May 1, Dave Kullman joined the OCTM leadership team as our new Executive Director. Dave is retired from Miami University (Professor Emeritus in the Department of Mathematics and Statistics) and brings to OCTM a wealth of

experience, knowledge, and dedication to supporting mathematics teaching and learning. Dave was the president of OCTM from 1989-1991 and has served in many leadership positions in OCTM, the Mathematical Association of America, and other organizations.

Dave has a particular interest in the history of mathematics and how it applies to classroom teaching, and he will be facilitating the Special Interest Group for this topic. We welcome Dave back to the board, and we are excited to work with him in serving and supporting the organization as well as teachers and students across Ohio.

SIGs Growing

Consider joining a SIG! Summer means more time and energy to follow our passions, network with others, and grow professionally. SIGs are up and running with facilitators and Google groups to join in the conversation. Just go to the OCTM Homepage and click on the SIG link to pursue this new opportunity. [More information](#) is included later in this newsletter.

The Ohio Council of Teachers of Mathematics

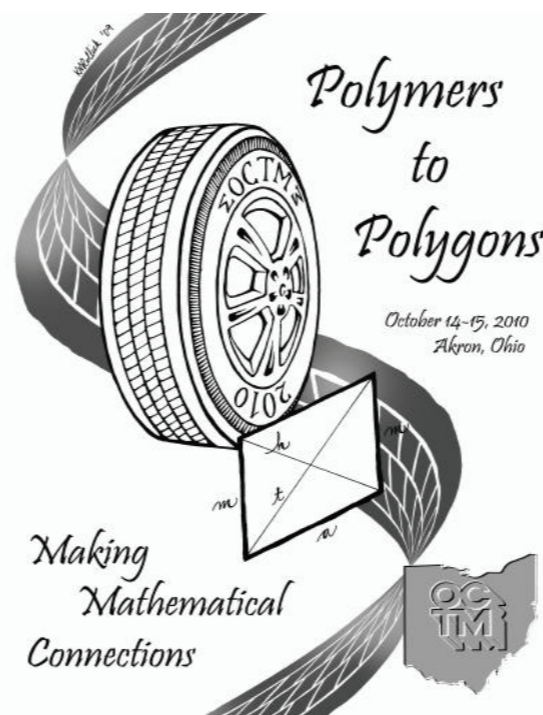
Newsletter

Volume 100 + n



July, 2010

Don't miss the 2010 OCTM Conference in Akron, Ohio



This year is the 60th anniversary of the annual OCTM Conference. Come and celebrate with other mathematics teachers on Thursday and Friday, October 14 and 15, 2010. The conference committee has been busy planning an exciting "Polymers to Polygons" conference for you at the John S. Knight Center in Akron. The registration form is available online at www.ohioctm.org Register now and save! Click [here](#) for some highlights of the celebration.

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Important Dates:

[OCTM Conference
Akron, OH
October 14-15, 2010](#)

[NCTM Conference
Indianapolis, IN
April 13 - 16, 2011](#)

“This was an amazing opportunity! Being new to this, it’s exciting to see what’s out there!”

Watch your mail in early August for a notice of OCTM elections!

President's Message

- Kim Yoak, OCTM President

The second annual OCTM Emerging Leaders Conference was a great success!



On April 17 in Columbus, 33 pre-service teachers and practicing teachers in their first five years of teaching joined veteran OCTM leaders for the second annual Emerging Leaders Conference. It was a phenomenal experience for all! Attendees participated in sessions related to mathematics content, pedagogy, and professional activity, and they were able to network with each other and with OCTM leaders throughout the day. Many thanks are owed to the leaders who helped to plan and lead this event. Presenters included: **Brian Roget** (ODE), **Eric Sustar** and **Emily Price** (Ohio University CTM), **Mike Mikusa** (ORC), **Joanne Caniglia**, **Mark Jaffee**, **Rena Allen**, and **Duane Bollenbacher**. Registration was coordinated by **Caroline Borrow**, and OCTM gifts for the attendees were ordered and organized by **Al Cote** and **Mark Jaffee**. **Judy Gerwe** and **Anne Hambrick** coordinated breakfast food, and **Brian Roget** and **Lisa Kearns** at ODE facilitated the lunch order. Also, special thanks go to **Dave Dobos** of Sheridan Worldwide and **Elizabeth Boring** of Pearson for providing door prizes for the event.

Comments from the evaluation forms included:

- “I will be bringing this back to [my university] and suggesting that the university continue sending students to this conference. I had a wonderful experience. This day was really worthwhile and I can’t wait for the fall conference.”
- “I’m really glad that I was able to attend this conference because I gained valuable information about teaching mathematics.”
- “This was an amazing opportunity! Being new to this, it’s exciting to see what’s out there!”
- “I plan to share information and resources with my fellow staff.”
- “I think this was a great idea and I have been reloaded with ideas for class.”
- “I really enjoyed the whole experience!”

The board will be staying in touch with each participant and “linking” each with a board member in the same area of the state as well as a board member who is involved in OCTM work in which the participant is interested in being involved. Other opportunities will also be offered to this special group of future leaders in the next year and beyond. *They are indeed the future of our profession in Ohio, and we must support and strengthen them as leaders!*

Common Core State Standards in Mathematics (and related updates)

- Kim Yoak, OCTM President

The final versions of the Common Core State Standards in Mathematics and English Language Arts were released on June 2 and adopted by our State Board of Education on June 7. Prior to this release, OCTM and the Ohio mathematics education community made a strong effort to influence changes to the public draft that was released in March. We now know that **Ohio submitted more group responses to the CCSS draft in mathematics than ANY other state** (almost twice as many as California!), and Ohio was extremely high ranking in terms of individual responses as well. Thus, Ohio may have had significant influence on the final draft of these standards. **We need to continue to advocate actively on behalf of students and teachers in Ohio; thanks to all who submitted any type of feedback on the public draft.**

The [response to the Common Core State Standards draft](#) that OCTM submitted to the national writing group (via the online survey) is included in this newsletter. The letter was informed by feedback from board members and members at large. The letter was also sent to the members of the Ohio House and Senate Education Committees and to key leaders in ODE as an official OCTM position.

We encourage you to visit www.nctm.org to read NCTM's response to the final version of the Common Core State Standards.

OCTM encourages members to participate in Model Curriculum Meetings this summer

- Kim Yoak, OCTM President

The next step in the refinement of Ohio's Comprehensive Educational System begins this summer with statewide Model Curriculum Teacher Team Meetings in July and early August. Please be sure your district's teachers know about this opportunity to learn from their colleagues while contributing instructional strategies and resources for the Model Curriculum. Each meeting participant will receive a certificate for three contact hours of professional development (PD) for submission to his or her local PD committee.


The strategies and resources that teachers suggest will be available for public review late fall. The final strategies and resources selected will be important components of the total Web-based Model Curriculum, along with several other sections ODE is developing

in consultation with advisory and working group committees. The completed Model Curriculum will:

- o Provide curricular and instructional guidance;
- o Present information specific to content areas; and
- o Allow teachers to "drill down" to the appropriate content for their grade levels.

Educational Service Centers are assisting ODE by facilitating the teacher team meetings, which are organized by content area and grade level. We encourage you and your colleagues to contribute to the Model Curriculum database that will be available

[continued on next page]



www.ohioctm.org

OCTM NEWSLETTER

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Change of address information for all OCTM communication to:

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 Chardon, Ohio 44024-9330
tsharp@ndec.org

Click [here](#) to become an OCTM member.

Click [here](#) for a complete directory of OCTM Officers

[Model Curriculum Meetings continued]

to all Ohio educators as they strive to provide their students an engaging, focused and rigorous education. For schedules by region and registration details, click [here](#) or visit education.ohio.gov and search for keywords: Model Curriculum. When searching STARS for the teacher team meeting use Event Name: Math and Key Word: Model Curriculum.

Thank you for your interest. If you have additional questions please contact Brian Roget at brian.roget@ode.state.oh.us or 614-466-2128.

OCTM focus for 2010: Supporting teachers in high-need areas

The OCTM Executive Board has identified a focus for the organization in 2010, and this focus is to support and collaborate with educators in high-need schools across Ohio. We will be working to do this within all activities and services throughout the year. If you have a suggestion, question, or desire to be involved in this work, please contact Kim Yoak at kjyoak@gmail.com or Mark Jaffee at markjaffee@oberlin.net.

OCTM Board members available to meet with your group

As the school year begins to conclude, please consider inviting an OCTM Board member to meet with your local mathematics community or college class. We have many enthusiastic leaders who would

OCTM membership opportunities

***OCTM membership makes a great gift – especially for new graduates!** Visit http://www.ohioctm.org/join_octm.htm to learn how to join or to obtain a membership form to give someone the gift of the OCTM community. Regular memberships are still only \$25, and first-year teachers can join for \$10! Full-time college students pay only \$5!

Reminder: **all K-6 teachers can join OCTM and SECO** (the Science Education Council of Ohio) together for a **25% discount** off the membership rate of each organization. Visit http://www.ohioctm.org/join_octm.htm to download this application.

Puzzle Corner

by [Duane Bollenbacher](#)

RIDDLE

Where can you buy a 3-foot ruler?

LEVEL ONE

Find the product of the first three prime numbers.

LEVEL TWO

The average (arithmetic mean) of a set of 10 numbers was 10. When two consecutive odd numbers in that set were discarded, the average was 8. What numbers were discarded?

LEVEL THREE

One of the acute angles of a right triangle has a measure that is half as much as the other acute angle. If the length of the hypotenuse is n in., find the EXACT perimeter of that triangle and also find the perimeter rounded off to the nearest 100th.

Click [here](#) for answers

love to share our OCTM experiences with others and also to learn how we can better serve our colleagues throughout Ohio. Please contact Kim Yoak at the address below to obtain contact information for a board member in your area.

Manuscripts sought for Ohio Journal of School Mathematics

This peer-reviewed journal, edited by Ed Laughbaum and Todd Edwards, is published twice a year and is a wonderful medium for Ohio educators to share ideas and beliefs about the teaching and learning of mathematics with others. Visit <http://www.ohioctm.org/ojsm.htm> to find out how to submit a potential article.

If you are a Twitter user, please follow the Ohio Council of Teachers of Mathematics on Twitter
<http://twitter.com/ohioctm>

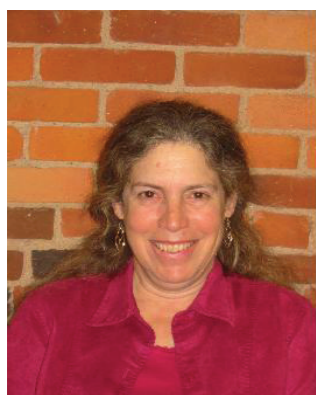
Conference Highlights!

Keynote speakers of particular interest to elementary teachers:



Douglas H. Clements is SUNY Distinguished Professor of Education at the University of Buffalo, SUNY. Previously a preschool and kindergarten teacher, his present research interests are in the areas of the learning and teaching of early mathematics and computer applications.

His most recent interests are in creating, using, and evaluating a research-based curriculum and in taking successful curricula to scale using technologies and learning trajectories. His latest books detail research-based learning trajectories in early mathematics education: Early childhood mathematics education research: Learning trajectories for young children and a companion book, Learning and teaching early math: The learning trajectories approach



Susan Jo Russell from the Education Research Collaborative at TERC has worked in research

and development for over 20 years. Her current work focuses on how students with a history of poor achievement in grade-level computation and students with a history of

excelling in grade-level computation engage in computations. She is developing, with Deborah Schifter and Virginia Bastable, a book and an on-line course for teachers in grades 1-6, Connecting Arithmetic and Algebra.

Keynote speakers of particular interest to middle and high school teachers:



Carole Greenes is past president of the National Council of Supervisors of Mathematics and author of over 70 articles and 300 books and programs for pre-kindergarten through college and for teachers, including issue editor for the NCTM 2008 Yearbook on Algebra and Algebraic Thinking and “Groundwork: Algebraic Thinking”.



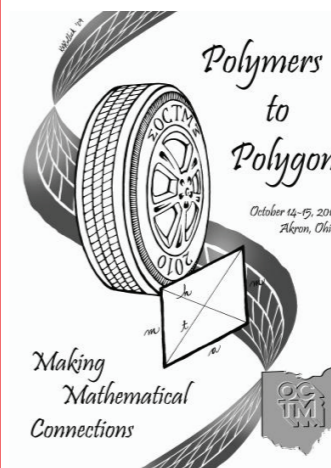
Gail Burrill from Michigan State University is past president of the National Council of Teachers of Mathematics and winner of the Presidential Award for excellence in Teaching Mathematics. She is the author of numerous books and articles on statistics and mathematics education.

Keynote speaker of particular interest to all teachers in Ohio:



Brad Findell is the Mathematics Initiatives Administrator at the Ohio Department of Education. He is coeditor of the well-known book, Adding It Up: Helping Children Learn Mathematics, a synthesis of the research literature on teaching and learning mathematics in grades K-8.

Common Core at the OCTM 2010 Conference



Ohio has joined the Common Core Initiative of 48 states, two territories, and the District of Columbia and will adopt these new common core standards as soon as they are fully developed. The OCTM 2010 Conference will

highlight what these common core standards will mean to you in your classroom. Representatives, from the Assessment and Mathematics Education Departments from the Ohio Department of Education will give grade-band specific information about the changes that Common Core will bring. They will answer your questions and give you the insight you need to take back to your school. Be sure to register early for the conference to learn more about Common Core and to secure the best prices. A registration form for the conference can be found at under “What’s New?” at the web site: www.ohioctm.org

If you are a Facebook user, please follow the Ohio Council of Teachers of Mathematics on Facebook
<http://www.facebook.com/home.php?#!/pages/Ohio-Council-of-Teachers-of-Mathematics/123986497619788>

More Conference Highlights!

OCTM Annual Recognition Evening

Sponsored by OCTM, Pearson and Company,
and Texas Instruments

Thursday October 14, 2010

Cash Bar and appetizers begin at 5:30 p.m.
with dinner at 6:30 p.m.

Chicken Piccata, Grilled Portabella, or Medallions of Pork Loin
Recognitions and Awards to follow dessert

The Akron City Centre Hotel

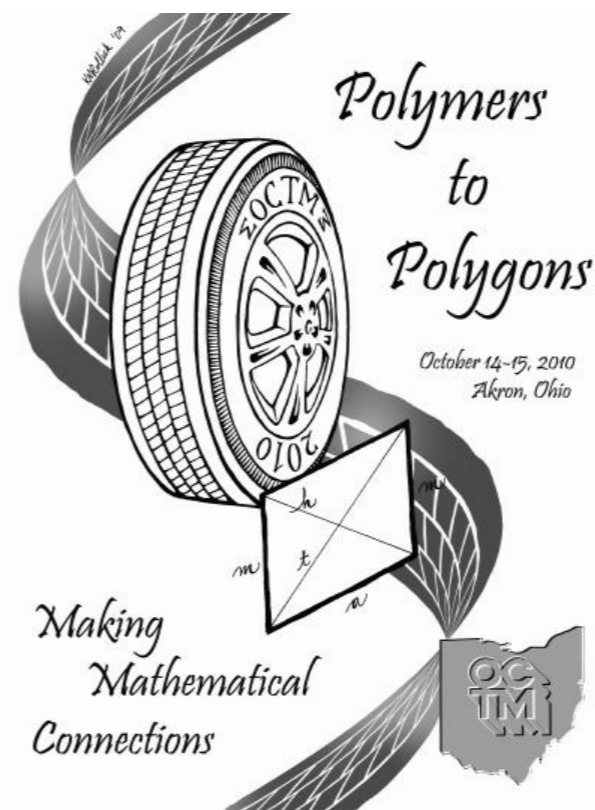
*This event requires advance registration and a fee:
\$25 for Early Bird (before 9/3/10) or \$30 for regular
registration (9/3/10 until 9/30/10).*

Everyone is invited to attend the annual OCTM Recognition Evening on Thursday October 14th at The Akron City Centre. After spending the day learning many wonderful things to use in your classroom, come celebrate, network, and relax. Where else can you get appetizers, a full meal, dessert, door prizes, and a program for only \$25 (Early Bird registration) or \$30 (regular registration)? The ticket that you purchase when you register for both the conference and recognition evening by September 30 will be included in the registration packet that you will receive when you arrive in Akron.

Ohio certainly has an abundance of great math teachers who are doing many phenomenal things and the OCTM Recognition Evening will be an excellent occasion to celebrate some of these teachers. This will be an exciting evening and the perfect opportunity for networking and being inspired by other teachers and their ideas. Please be sure to join us by indicating this on your conference registration form.

Teachers' Technology Tutoring Tent - T⁴

Have you ever wished that you knew more about interactive white boards or hand-held technology devices or document cameras but didn't want to admit you didn't know how to use one? This year the **OCTM 2010 Conference** will host a Teachers' Technology Tutoring Tent to address this issue. Conference participants can enter the tent and try the technology at the various stations without fear and without any sales pitch. An experienced user will be available to answer your questions as you press the buttons or use the color wands. You'll leave with a little experience and a much better feeling about your knowledge of the latest technology. Be sure to register early for the conference to secure the best prices. A registration form for the conference can be found under "What's New?" at www.ohioctm.org.



The conference, Polymers to Polygons: Making Mathematical Connections

will provide a range of opportunities to find innovative ideas and network with other mathematics teachers from grades K-16. There will be panels of special topics such as Math Coaching, Special Education, First Year Teachers, and Pre-service Teachers. This is just a sampling of the great connections you will find at the conference

October 14 and 15, 2010. For more information watch the link at www.ohioctm.org.

OCTM's Response to the Common Core State Standards in Mathematics

April 1, 2010

To the Council of Chief State School Officers, The National Governors' Association Center for Best Practices, and Achieve:

This letter is written on behalf of the Board of Directors of the Ohio Council of Teachers of Mathematics to respond to the March 10, 2010 draft of the Common Core State Standards in Mathematics. OCTM is an organization of over 3,700 mathematics educators from pre-school through higher education. We believe that every student should have full access to mathematics education that develops the understandings and skills necessary for mathematical literacy and full participation in a global society. *In addition, we are guided by a belief in policies and practices that value and emphasize the thinking of teachers and students.* This response represents input from OCTM Board members as well as many OCTM members, who submitted feedback at regional forums and online.

OCTM supports the development of a national standards framework that is focused, clear, and coherent in specifying rigorous mathematics content for all students in each grade. We believe that this draft of the Common Core State Standards does reflect a goal of focusing on several "big ideas" in each grade rather than lengthy, disjointed lists of objectives. In general, we agree that students meeting these standards will be well prepared for success in college and the workplace and that students meeting STEM standards will be well prepared for STEM majors and careers.

However, we believe that more work needs to be done to present a clear, coherent, and achievable vision of school mathematics from kindergarten through high school in the final standards document. *We urge the writing group to rely on established research about students' mathematical thinking at least as much as international benchmarks. We also urge the group to remain cognizant of the fact that classroom teachers will be primarily responsible for enacting the standards included in the final version of this document.* As such, the document must be organized and written in a format that is readable and useful in determining what understandings students need to develop relative to each big idea. The document as a whole is somewhat difficult to navigate (though we recognize that this difficulty may be alleviated if the standards are ultimately published electronically and in a dynamic environment).

On the following pages, we include the major points that our members and leaders have raised as they have collaboratively examined the document. *We hope that the writing group will be genuinely responsive to the feedback submitted by groups and individuals across the country, and we believe that the CCSSO, the NGA, and Achieve should post as much of this feedback online as possible, along with commentary to indicate how the feedback was utilized in*

formulating the final version of the document. OCTM is particularly interested in seeing a response to the letter from 40 leading mathematics educators that was posted online on March 31 at <http://commoncorematheducatorsrespond.blogspot.com/>, and we echo the well-stated, research-supported concerns expressed in this letter.

K-8 Standards

Domain: Number

- Many of the standards, in the primary grades particularly, are only included once. Ideas that are very foundational should be addressed at least over two years to account for developmental readiness of students. In general, we are concerned that the standards related to base ten understanding and computation are addressed too early, and we question the rationale for these placements (what research supports them?).

- Conceptual understanding is not as apparent as procedural skill in these standards, particularly related to computation with whole numbers, fractions, and decimals.

- Strategies students are to learn seem to be limited; certain strategies are emphasized above others. One particular example of this is the over-reliance on the number line to represent fractions; students must also learn to represent fractions in regions and in sets (though fractions of sets should probably appear in grade 4, given that the whole is less apparent in a set).

- We are very disappointed, and indeed perplexed, at the use of the word "the" to describe a standard algorithm. If these standards are to reflect *international* instructional goals, then using the word "the" is shortsighted since there are *many* efficient, conventional algorithms for computation used around the world.

- The content in grade 5 is considerably more sophisticated and more extensive than the content in grade 4. We strongly suggest that much of the fraction and decimal arithmetic be moved to grade 6.

- The standards in Number should be more explicitly connected with those in Geometry and Measurement.

- We appreciate the examples that are provided in some of the standards; this contributes to the clarity of these statements.

- The language overall in Number is relatively clear.

- We believe the inclusion of fluency in certain skills in grades 6-8 is wise.

Domain: Geometry

- In general, the language should be clarified by providing more examples.

- Again, connections between the Geometry and Measurement standards should be more readily apparent.

- Clarification and refinement are needed in grades 1-6 for the progression of ideas and skills related to angles, plane figures, and the coordinate plane.

- We are concerned about the geometry that students will miss in grade 8 if they enroll in the first high-school course a year early. Can this be accounted for in the high school courses?

Domain: Measurement and Data

- Standards involving time and money are noticeably lacking and are disjointed when they do appear. This progression should be refined considerably, taking into account students' developmental readiness to understand certain ideas, such as fractional parts of hours and dollars. Would it not make sense to begin the study of money with whole dollars (and landmark amounts) instead of cents?
- More effort should be made to include examples related to Data and Probability in the Number standards if Data as a domain on its own is to remain so limited.
- Graphing in these grades should routinely include dot (or line) plots, bar graphs, pictographs, and perhaps line graphs. Dot plots seem to be overemphasized currently.
- We encourage the writing group to consider combining Measurement and Geometry as a domain in grades K-5 to align with the domain in grades 6-8.

Domain: Expressions and Equations

- The standards in grades 6 through 8 seem to be relatively clear, though additional refinement of the language and additional examples would be helpful.

High School Standards

Conceptual Category: Number and Quantity

- We recommend that the standards involving matrices should be included for all students, not just students in STEM courses.

Conceptual Category: Algebra

- In general, we do *not* feel that the standards in this category are clear, focused, and appropriately rigorous.
- In any given cluster, it is difficult to tell how the ideas are to progress (or “flow”).
- Many of the statements need to be clarified, perhaps with examples.
- The references to technology are rather vague and do not indicate what mathematics is to be *learned* using certain technologies versus “done” using these technologies. Is the technology only a tool to find an answer, or is it an instructional tool?
- We believe that the standards related to complex numbers should *not* be classified as STEM standards.
- Standards involving polar and parametric equations *should* be classified as STEM standards.

Conceptual Category: Geometry

- In general, we feel that the standards in this category *are* clear, focused, and appropriately rigorous, with some exceptions.
- We recommend that more real-world applications and examples be reflected in the standards.
- The standards in this category should be more carefully sequenced to demonstrate a progression of ideas.

- Students in STEM courses need to understand the limits of Euclidean geometry.
- In general, more three-dimensional geometry should be included since we live in a three-dimensional world.

Conceptual Category: Statistics and Probability

- In general, we do *not* feel that the standards in this category are clear, focused, and appropriately rigorous.
- The standards under Summarizing and Categorizing Quantitative Data and under Conditional Probability and Laws of Probability do seem clear, specific, and focused.
- The probability models could be addressed in middle school.
- There seems to be an excessive focus on investment as an application of these standards.

General comments

In general, we encourage the writing group to consider and articulate the learning needs of high-achieving students when finalizing these standards.

The names of the clusters in grades K-8 are currently stated in somewhat vague terms and do not illustrate the development of ideas from grade to grade. Further, it would be helpful in the tables on pages 7 and 8 of the current draft to include language in the “empty” cells to indicate the informal development of ideas in grades where the clusters are not formally present (such as fraction concepts in the early grades).

Moreover, the current structure of the document, that creates a distinct separation in format between K-8 and high school, can be confusing. We recommend that the formats for the K-8 and high school standards be unified in the final document and that the high school Pathways be included in the main document instead of in an appendix.

OCTM wishes to express appreciation to the writing group for the substantial effort that each member has devoted to this important work. Again, we hope that the final document will reflect research on student thinking about mathematics and the feedback from professional organizations and individuals across the nation, as well as international benchmarks in mathematics when appropriate. We also hope that the writing group, the CCSSO, the NGA, and Achieve will strongly advocate and plan for high-quality, ongoing professional development for all teachers who will ultimately implement these standards. It is absolutely necessary, without question, to support teachers in their work so that they may be able to effectively support student learning of mathematics.

Respectfully submitted,

Kim Yoak
 President
 Ohio Council of Teachers of Mathematics
kjyoak@gmail.com

ODE Update

- Vicky Kirschner, ODE Mathematics Consultant

The Draft Common Core State Standards for Mathematics was released for public comment on March 10, 2010. The public comment period for the Common Core State Standards ended on April 2, 2010.

Teachers and teacher educators will be invited to participate in regional/local meetings related to the development of Ohio's Model Curriculum for Mathematics.. They will provide ideas for supporting the implementation of the Common Core State Standards for Mathematics.

The Ohio Performance Assessment Pilot Project (OPAPP) will continue through the 2010-2011 academic year. Districts involved in this project will continue their work into a second year.

The Ohio Mathematics and Science Partnership (MSP) Program will support five new projects. The projects and their respective partners are listed below.

- The Kent State University – Warren G. Harding High School Mathematics Partnership (*Kent State University and Warren G. Harding High School – Warren City Schools*)

- Rio Connections: Jackson focus on Mathematics and Science Teaching (*University of Rio Grande and Jackson City Schools*)

- Implementing Lesson Study and Measuring Its Impact on Teacher Development (*Wright State University and Kemp PK-8 – Dayton Public Schools*)

- The Woodward MSP Project (*Univer-*

sity of Toledo and Woodward High School – Toledo Public School)

- Improving Science Achievement: A Learning Community Approach (*University of Cincinnati and Mt. Healthy City Schools*)

The Ohio Achievement Assessments (OAA) calculator policy has been expanded to include examples of allowable calculators. This revised policy can be found on the ODE Website using *blueprint* in the search window and then clicking on *ODE – Blueprints for Ohio's Achievement Tests*.

Puzzle Corner Answers

RIDDLE

At a yard sale

LEVEL ONE

$$2 \cdot 3 \cdot 5 = 30$$

LEVEL TWO:

17 and 19. Since the average of ten numbers is 10, the sum must be 100. Then the average of 8 numbers is 8, so the sum must be 64, which means that a total of 36 was discarded. $x + (x + 2) = 36$; $2x = 34$; $x = 17$ and $x + 2 = 19$.

LEVEL THREE:

The acute angles are 60 and 30. The short leg is $\frac{1}{2}$ of $12\sqrt{3} = 6\sqrt{3}$, and the long leg is the short leg times $\sqrt{3}$, i.e., 18. The EXACT perimeter is $6\sqrt{3} + 18 + 12\sqrt{3} = (18\sqrt{3} + 18)$ in. The approximate perimeter is 49.18 in.

OCTM Board Update - Meeting held June 5, 2010

The following were agenda items at the June board meeting:

- Treasurer's and website reports
- Membership report
- Conference reports: 2007, 2009, 2010, 2011, 2012
- Brief reports from all other board members
- ODE report
- Nominations slate
- October 16 standards rollout day in Akron
- Conference policies related to vendors, presenters, etc.
- Tournament policies
- OCTM donor program
- Follow-up with Emerging Leaders
- Possible changes in the awards program
- Promoting SIGs with all members and potential members
- Supporting mathematics educators in high-need areas: Networking with TODOS, Benjamin Banneker Association
- Member Services and Outreach Committee
- OCTM promotional materials (both giveaways and for sale items)
- Continuity/transitions on the OCTM board
- The phrase "mathematical literacy" in our guiding philosophy

Announcing OCTM Special Interest Groups (SIG)

- Patti Brosnan, OCTM Vice President - College

As part of OCTM's strategic vision for promoting positive, collaborative growth in mathematics education, we are pleased to announce the formation of Special Interest Groups. The goal of these Special Interest Groups is to develop strong networks of OCTM members who are interested in specific issues in mathematics education. Networking can be a catalyst to growth and development of our professional practices, and we would like to facilitate this process throughout the state of Ohio.

In the table below, check out the SIGs that are all ready to get started. You are most welcome to sign up for one or more of these or start one of your own. To sign up, just email your topic facilitator and then each facilitator will contact each person in her or his SIG and arrange with their respective group members how to operate as a team. [ed. note: Bob Klein's email address was not correct in the fliers that were mailed. This list has the correct email address.] Groups may use such means as email, blogs, discussion boards, local, regional and state conferences, or any other way to get together for professional dialogue on important topics. What is YOUR passion?

If you would like to start a SIG of your own, please contact one of OCTM's VPs Caroline Borrow cborrow@hb.edu; Anne Hambrick hambricka@olv-school.org; or

Patti Brosnan pbrosnan@ehe.osu.edu who will get you started. We are so excited to have so many good choices to offer our membership so early in this process.

In anticipation of the wealth of knowledge shared and generated by your group, we would love to have as many SIGs as interested to submit a proposal to hold a session at the next OCTM conference in Akron (Caroline Borrow cborrow@hb.edu or Joanne Caniglia Jcanigl1@Kent.edu). You will be able to discuss your topic, gain additional perspectives, and you may even attract more members to your group. Let's get this party started!

Make a difference for kids in Ohio.

OCTM Special Interest Groups 2009-2010

<u>Topic</u>	<u>Facilitator</u>	<u>E-Mail</u>
<i>Assessment</i>	Carl Jones	Carl_Jones@darke.k12.oh.us
<i>Data Analysis & Probability</i>	Jerry Moreno	Moreno@jcu.edu
<i>Early Childhood</i>	D. Kuchey	kuchey@xavier.edu
<i>Gifted Mathematics Education</i>	Jean Claugus	jean.claugus@omeresanet.net
<i>History of Mathematics</i>	David Kullman	kullmade@muohio.edu
<i>Middle School Algebra</i>	Chad Vahue	cvahue@mariemontschools.org
<i>Ohio Core Curriculum</i>	Jeremy Strayer	jstrayer@mvnu.edu
<i>Rural Education</i>	Bob Klein	bob@math.ohiou.edu
<i>Special Needs</i>	Joanne Caniglia	Jcanigl1@Kent.edu
<i>Urban Education</i>	Staci McDaniel	smcdaniel@citizensacademy.org
<i>Dynamic Mathematics and Technology</i>	Steve Phelps	sphelps@madeiracityschools.org

list updated as of 7/14/10

Ohio Pioneers in Mathematics Education

Part 1: The Early Years

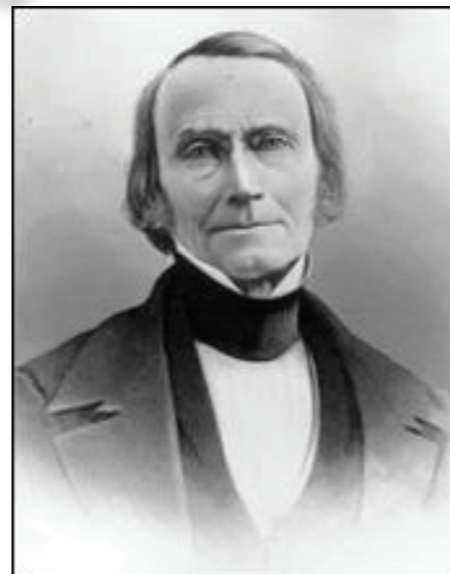
- David Kullman

In 1803 Ohio was admitted as the first state in the Northwest Territory. For nearly two centuries it has been home to leaders in the field of mathematics education. This series of historical notes will illuminate the lives and contributions of some of these notable men and women.

Educational institutions in the early years comprised a hodge-podge of infant, primary, and normal schools, academies, and colleges. School financing in Ohio (then as now) was woefully inadequate. The first general tax levy for the benefit of schools was passed by the legislature in 1825, but ten years later it was hard to find a township where the annual funding for public education exceeded one dollar per pupil. The teacher corps also left much to be desired, as many teachers did not even possess a high school diploma. The time was ripe for the establishment of an organization to represent school interests and promote teaching as a profession.

In October 1832 a group of teachers from Ohio, Kentucky, Indiana, and Mississippi met in Cincinnati to form the Western Literary Institute and College of Professional Teachers. Its object was “to promote, by every laudable means, the diffusion of knowledge in regard to education,” and to elevate teachers who “have adopted instruction as their regular profession.” The College of Teachers, as it came to be known, was one of the earliest professional education organizations in the world. Annual meetings were held in Cincinnati, with members attending from as many as ten states and territories. They advocated universal, compulsory education funded and supervised by the states, standardized courses of study, more rigorous and systematic training of teachers, and the elevation of teaching as a profession.

Two notable leaders in the College of Teachers were mathematicians Thomas J. Matthews and Joseph Ray. Matthews was born to Quaker parents in Leesburg, Virginia, in 1788 and began teaching school in Cincinnati in 1818. Five years later he was elected as the Morrison Professor of Mathematics and Natural Philosophy at Transylvania College in Lexington, Kentucky, the oldest college west of the Allegheny Mountains. While he was there he successfully surveyed the “Matthews Line” forming part of the boundary between Kentucky and Tennessee. Later, as the State Civil Engineer of Ohio, he would help to survey the route for the Ohio and Erie Canal.



In September 1832 Matthews was called back to Cincinnati to become the first President of Woodward High School. The following month he attended the organizational meeting of the College of Teachers and was elected as the first President of that body. Matthews remained at Woodward for three years before resigning to become an officer of the Ohio Life Insurance and Trust company. He was one of five Cincinnati citizens appointed in 1838 to investigate the causes of a boiler explosion that destroyed the steamboat Moselle and killed more than 100 people. Matthews

was elected Professor of Mathematics and Astronomy at Miami University in 1845, where he was highly respected as a teacher and a scholar. He resigned due to ill health and died, following a stroke, in 1852.

One of Matthews’ most influential decisions as President of Woodward High School was to hire Joseph Ray to teach mathematics. Ray was born in Ohio County, Virginia, (now part of West Virginia) in November 1807. By age 16 he had studied algebra, geometry, and surveying and was teaching in the rural schools near his home. He graduated from Franklin College in New Athens, Ohio, in 1828 and began studying medicine under the tutelage of a local physician.

Arrangements were made for Ray to attend the Medical College of Ohio in Cincinnati and, by teaching in the summer and studying medicine in the winter, he was able to complete his M.D. degree in the spring of 1831. Ray’s medical career did not prove to be successful from a financial standpoint, so he again sought employment as a teacher. Over the next two decades he would serve as a teacher, Professor of Mathematics, and Principal at Woodward. He was one of the secretaries elected at the organizational meeting of the College of Teachers, and he frequently presented papers at their annual



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[Ohio Pioneers continued]

meetings.

In 1834 the Cincinnati firm of Truman and Smith published An Introduction to Ray's Eclectic Arithmetic. This was the first in a series of more than fifty titles and editions that would become part of Ray's Mathematical Series. His arithmetic and algebra textbooks are considered by some to be "the most popular, most extensively used, and most representative of the content and organization" of school mathematics textbooks in the period 1821-1892. Truman and Smith also published the famous McGuffey Readers, but Ray's Arithmetic was their first big success. For this reason, Joseph Ray has been called "the McGuffey of mathematics."

Ray served as president of the Ohio State Teachers Association in 1854 and afterward assumed the duties of associate editor for The Ohio Journal of Education. There he established a "Mathematical Department," devoted primarily to the posing and solving of mathematical problems. He died of pulmonary consumption (tuberculosis) in 1855, and Ray's Higher Arithmetic was published the following year, having undergone final editing by T. J. Matthews' son, Charles, who had been a favorite pupil of Ray.

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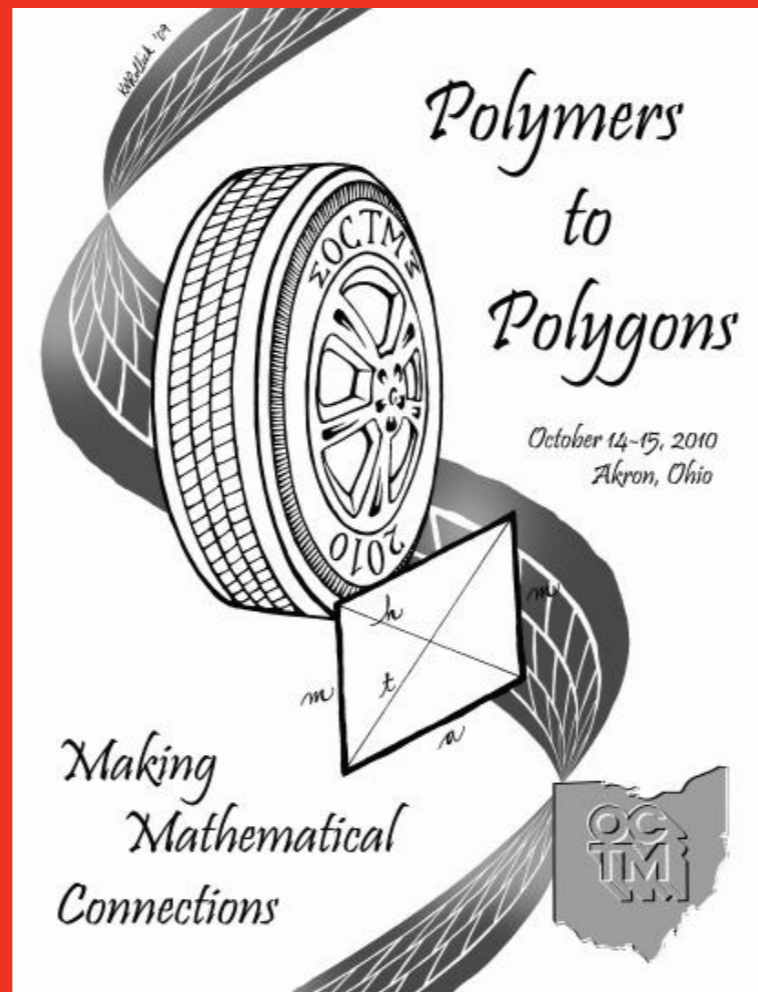
Save the Date

The Ohio Council of Teachers of Mathematics Annual Conference

Polygons to Polymers –

Making Mathematical Connections in Akron

October 14 - 15, 2010



OCTM Loses a Dear Friend

- Margie Coleman, OCTM Newsletter Editor

On February 18, 2010, long-time friend of OCTM, **Janet Emerine** passed away. Janet was a lifelong educator and was currently working as a Professor of Mathematics Education at the Bowling Green State University. Janet is a past Vice President of OCTM. She also sat on the Ohio Resource Center Math Board.

In order to properly pay tribute to Janet, I would like to include memories from those who knew her best. Please click [here](#) to email me with your memories of Janet, and we will include a wonderful portrait of our dear friend in the next issue.

Mark your calendars for a Standards workshop on October 16

On Saturday, October 16, the day after the annual conference ends in Akron, OCTM and Texas Instruments will be sponsoring a workshop for school district teams (individuals may attend also) to begin to prepare for the transition to the new Ohio mathematics standards. Please watch for future OCTM communications regarding this unique and exciting opportunity, and consider who from your district might participate.

Ohio Early College Mathematics Placement Testing Program (EMPT)

The Ohio Early Math Placement Testing Program based at The Ohio State University has been providing college readiness testing service to Ohio high school students since 1978.

School Testing:

- EMPT predicts college math placement at 44 colleges in Ohio.
- Student's ACT score is predicted based on their EMPT score!
- Each EMPT student report includes breakout sub-scores on pre-algebra items, beginning algebra items, and intermediate algebra items.

• Go to http://www.empt.org/signup_form for school sign-up to test.

Individual Testing:

- Anyone in the state may take the EMPT Test.
- In addition, test in pre-algebra/beginning algebra, data analysis, geometry, intermediate algebra, and college placement. For each item missed, the immediate electronic report will direct students to an on-line lesson (when lessons exist) at the Ohio Resource Center for self remediation on the concept.
- Send your students to <https://tests.empt.org/index.php> for individual testing.

Colleges have moved to on-line placement tests; so prepare your students for the experience by using the EMPT on-line tests. At the same time, students learn their potential college placement and possible ACT math score.

For further information see www.empt.org, or contact Ed Laughbaum at elaughba@math.ohio-state.edu.

Duane Bollenbacher's 22nd Annual Summer Workshops 2010 SUMMER MATHEMATICS WORKSHOPS for TEACHERS

at Bluffton University, Bluffton, Ohio
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For each workshop (3 days in length)
this is the possible credit that may be earned:

22.5 Contact Hours for LPDC Credit—Cost \$125 OR
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SUMMER COURSES TO BE OFFERED

The following courses are open to anyone, but any two of them may be used to **HELP AN INTERVENTION SPECIALIST BECOME AN OFFICIALLY (HQT) HIGHLY QUALIFIED TEACHER IN MATHEMATICS CONTENT**

Tues-Thurs, Aug 10-12: **“Become a MASTER TEACHER in Middle School Geometry Topics”**
INSTRUCTOR: Marilyn Link, Coldwater, Ohio

Tues-Thurs, Aug 10-12: **“~~200-202~~ 205 Things That EVERY High School Mathematics Teacher, Especially YOUNGER Ones, Should Know”**
INSTRUCTOR: Duane Bollenbacher, Bluffton University

NOTES: Lunches are included; housing and other meals are available.

For further information, brochures/registration forms, or questions, contact:
Duane Bollenbacher, Bluffton University Box 54, Bluffton, OH 45817
(W) 419-358-3296; (H) 419-358-7365; e-mail: bollenbacherd@bluffton.edu
Bluffton University, Bluffton, Ohio (Between Toledo and Dayton on I-75)