



Mathbits

Minnesota Council of Teachers of Mathematics

www.mctm.org

Going to the Fair?

Each year MCTM staffs the Education Minnesota booth for one of the days of the State Fair. It's a great time to educate the public about what we value in school mathematics. We would like to have teachers demonstrate some activities that are used to teach mathematics and give examples of how students become engaged. If you would like to help with this one-time activity, please contact Larry Luck. Bring your favorite activity! Show the public that math doesn't have to be boring! How about "Math on a stick?" Is anyone game for this?

Call or email Larry Luck, MCTM President, 218-485-8528 or 763-784-0084, larryluck@aol.com.

MCTM Fall Conference

October 18, 2002

While most MCTM members are enjoying the summer break, Cathy Wick, Kathy Cramer, Brad Larson, and Arnie Cutler continue to organize and prepare for MCTM's annual fall conference. The conference, held jointly with the Minnesota Science Teachers Association, will convene on October 18, 2002 at Eastview High School in Apple Valley. The theme of the conference is "Science and Mathematics: In the Classroom and Beyond." Following the opening session and keynote address, participants have the opportunity to attend four 45-minute sessions. Exhibits open at 7:30 a.m. so plan on arriving early! Box lunches from Panera Bread Company will be provided. For more information on the fall conference, see the flyer on page 5 or visit the MCTM web site: www.mctm.org.

Interested in speaking at the MCTM Fall Conference?

Share your ideas and experiences with colleagues! The Fall Conference Committee is particularly interested in presentations addressing the needs of elementary teachers. Also of interest are sessions targeted to all teachers new to the field. Interested individuals or teams are encouraged to complete the Presentation Proposal form on page 6.

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As some of you may know, I retired in May from active teaching. After forty-four wonderful years of working with students from the middle-school to the community college level, this is a time of mixed emotions. A part of me doesn't want to stop doing this important work and this part is influenced by some great groups of students I've had this last year. As I reflect on all the debate occurring in mathematics education about how much manipulative skill students must have and how we should appropriately use technology, I want to make some observations about the students in two of my classes this semester.

With a Little Luck

Students in second semester calculus, many of whom I had in the first semester course, seemed to learn the concepts of calculus pretty well and some developed a good sense of the proper use of graphing technology. I believe that they should not rely entirely on technology but that they should be able to demonstrate algebraically the basic techniques of calculus. As you would expect, while they were generally well prepared, their algebra skills were "all over the board" even though most of these students came from fairly traditional mathematics programs in their high schools. The idea of teaching them everything they would ever need to know in future courses, kind of like stocking the pantry shelves, didn't seem to help much. What did happen, however, was that they learned what they needed to know about algebra when they needed to know it. They were generally mature, there was a reason to learn it – a particular context or application – and they did fine. Oh, there were still a few who routinely forgot to distribute a negative or to properly square a binomial, but they quickly recognized their error and took responsibility for it; they were responsible, not some previous teacher. If there was anything that many of these students were lacking it was a sense of exploration. It took most of the year to get them to think about exploring a problem and recognizing connections. This is part of what I really wanted them to learn and I think that's what standards-based school programs emphasize as well. So there is reason to be optimistic.

President's Column

Another group of students was taking an Intermediate Algebra course that covers many of the concepts in a standard second course in high school algebra. After we got past the initial grumbling about having to talk to other students, most of them made amazing strides. By the end of the course they had a better understanding of some concepts of mathematics and its applications and their algebra skills improved too as well as their attitude and their self-confidence. There were two down sides; one occurred when they were asked to investigate a function on the graphing calculator. The freedom to just try some numbers or expressions to see what happens seemed foreign to them and I was disappointed in that. The other was their performance on skills out of context. I think, after all these years, that I do a pretty good job of explaining rational expressions, factoring and other manipulative skills that the curriculum required. But the results were dismal – after fine teaching in high school, my "brilliant" presentations – still poor results. My only conclusion is that I had not provided them with contexts and applications that made these skills necessary and useful as I should have been doing were I teaching a true standards-based course.

I recently heard a mathematics education professor with over fifty years of experience say that he tells his future teachers that he is jealous of them because they are entering the profession in the most exciting time we've ever seen. We certainly have plenty to debate and plenty of opportunities to find better ways to teach this subject that we love. Closed minds and angry voices won't do it. We will grow only when we take the time for long and reasoned discussions and reflection. Think back about what worked and what didn't with your students this past year.

MCTM is making a difference in Minnesota – catch the excitement!

Larry Luck
MCTM President

In Memory of Charles Lund

As this school year draws to a close, I would like to reflect on a life that also drew to a close this year. Charles Lund was the spokesperson for mathematics in Saint Paul schools for many years. He worked to promote best practice in mathematics teaching starting with the youngest students. Every year he arranged numerous workshops for teachers and sent them out with renewed enthusiasm, new insights, numerous manipulatives and strategies they could use.

Charles Lund authored numerous books of mathematics games, instructional strategies, calculator activities, and other resources for mathematics teachers from elementary through secondary school. Many of these books were co-authored by Ed Andersen. Charles and Ed presented regularly at the National Council of Teachers of Mathematics regional and national conferences and the Minnesota Council of Teachers of Mathematics conferences.

Charles also advocated for quality mathematics teachers. When Saint Paul mathematics teachers had good student teachers, he worked to get them hired by the district. He knew that it takes special qualities to be a strong mathematics teacher, particularly when working with an urban population. His goal was to make sure that Saint Paul's students were given the best.

Sharon Lund, Ed Andersen, and Saint Paul Public Schools teachers have established a scholarship fund in memory of Chuck's dedication to mathematics education. The fund will provide a \$2000 scholarship to support a mathematics student teacher in a Saint Paul Public School. Donations to this fund are being accepted by:

The Charles Lund Memorial Scholarship Fund
Business Office
Saint Paul Public Schools
360 Colborne Street
Saint Paul, MN 55102

Connie LaCombe

Are you looking for funds or equipment to help you implement a program in your classroom, department, or school? The PEN Weekly *NewsBlast* is a free e-mail newsletter featuring school reform and school fundraising resources. For more information, visit <http://www.publiceducation.org/news/signup.htm>.

Educational Funding Resources

The Braitmayer Foundation

The Braitmayer Foundation supports organizations and programs that enhance the education of K-12 students through curricular and school reform initiatives, professional development for teachers, and local community efforts. Normally the grants are used as seed money, challenge grants, or to match other grants to the recipient organization. Proposals are due by June 30, 2002.

<http://www.braitmayerfoundation.org/guid.htm>

Share the Technology

Share the Technology is a nonprofit organization that repairs, upgrades, and donates used computers to nonprofit organizations, schools, and people with disabilities. They provide listings of computers available for donation and a database for public and private schools, and other nonprofit organizations to list their computer needs.

<http://sharetechnology.org/>

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Educational Funding Resources

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Fundsnet Online Services

A comprehensive website dedicated to providing nonprofit organizations, colleges, and universities with information on financial resources available on the Internet.
<http://www.fundsnet services.com/>

Department of Education Forecast of Funding

This document lists virtually all programs and competitions under which the Department of Education has invited or expects to invite applications for new awards for FY 2002 and provides actual or estimated deadline dates for the transmittal of applications under these programs. The lists are in the form of charts, organized according to the Department's principal program offices, and include programs and competitions the Department has previously announced, as well as those it plans to announce at a later date. Note: This document is advisory only and is not an official application notice of the Department of Education.
<http://www.ed.gov/offices/OCFO/grants/forecast.html>

eSchool News School Funding Center

Information on up-to-the-minute grant programs, funding sources, and technology funding.
<http://www.eschoolnews.com/resources/funding/>

Philanthropy News Digest-K-12 Funding Opportunities

K-12 Funding opportunities with links to grantseeking for teachers, learning technology, and more.
<http://fdncenter.org/funders/>

School Grants

A collection of resources and tips to help K-12 educators apply for and obtain special grants for a variety of projects.
<http://www.schoolgrants.org>

Wal-Mart Teacher of the Year Award

Wal-Mart's Teacher of the Year Program is designed to recognize outstanding teachers throughout the U.S. and in areas where Wal-Mart Stores or SAM'S CLUBS are in operation. Every year Wal-Mart associates work with schools in their communities to select an outstanding teacher and award a \$500 grant to his or her school. Since the program began in 1996, Wal-Mart has saluted nearly 11,000 Teachers of the Year and contributed \$5.1 million in education and grants to local schools. Anyone can nominate a teacher by visiting a local Wal-Mart store, Supercenter, Neighborhood Market, or SAM'S CLUB. Nominations are due in April.

Mark your calendar!

The MCTM Spring Conference is April 25-26, 2003, in Duluth. See you there!



www.mctm.org

MCTM Fall Conference

Minnesota Council of Teachers of Mathematics
Joint Meeting with Minnesota Science Teachers

Science and Mathematics: In the classroom and beyond

Friday • October 18, 2002

Eastview High School
6200-140th St. West, Apple Valley, MN 55124

Schedule Highlights

- 7:30 • Registration
- 7:30 – 1:30 • Exhibits Open
- 8:00 – 9:15 • Opening Session
- 9:30 – 10:15 • Session I
- 10:30 – 11:15 • Session II
- 11:30 – 12:15 • Session III
- 12:30 – 1:15 • Box Lunch from
Panera Bread Co.
- 1:30 – 2:15 • Session IV
- 2:20 – 2:40 • Door Prizes

Registration Fees

Includes lunch

	Pre-Registered	On-Site
Member	\$25	\$30
Student Member	\$12	\$17
Non-Member	\$40	\$45
Student Non-Member	\$20	\$25

Special \$10 rate for each Math Ed Student if group from same college registers together, in advance, with one payment.

Over 50 Sessions for Kindergarten through Higher Ed throughout the day

Sessions will focus on classroom practice and applications. Registrants for the MCTM Conference are welcome to attend any MnSTA science sessions.

Directions to Eastview High School

from the north

take Cedar (Highway 77) south to 140th Street. Travel east (left) on 140th Street (about 1.25 miles). Eastview High School will be on the south (right) side of the street. Turn in at the sign (there is a stop light), park in the west lot, and enter through the west entrance.

from the south

Take 35E to County Road 42. Travel east (right) on County Road 42 to Cedar. Turn north (left) on Cedar. Travel north on Cedar to 140th Street. Travel east (right) on 140th Street (about 1.25 miles). Eastview High School will be on the south (right) side of the street. Turn in at the sign (there is a stop light), park in the west lot, and enter through the west entrance.

For more information contact:

Cathy Wick, Conference Chair
651-699-0506
cwick@ties.k12.mn.us

Kathy Cramer, Conference Chair
612-624-7312
crame013@umn.edu

Brad Larson, Conference Chair
507-444-8889
blarson@owatonna.k12.mn.us

Arnie Cutler, Registration
612-626-8326
cutler@tc.umn.edu

Visit www.mctm.org for registration and speaker forms and more information as it becomes available.

Presentation Proposal
Minnesota Council of Teachers of Mathematics
Fall Conference, Friday, October 18, 2002
Eastview High School, Apple Valley

Name _____

Preferred mailing address (This address will be used for all correspondence with you).

Street/PO Box _____

City/State/Zip _____

Home Phone _____ Work Phone _____ Fax _____

Email Address _____

Name and school or professional affiliation as they should appear in the conference program

Name (please print clearly) _____

Affiliation _____

City/State _____

Please circle the appropriate grade levels for your presentation:

K 1 2 3 4 5 6 7 8 9 10 11 12 College General

Presentation category: _____ 45 minutes _____ double session _____ "Table Talk" lunch session

Title of Presentation: (Two lines maximum; 36 spaces per line maximum)

Additional Description for Program – Optional (20 words maximum)

Equipment or facilities needs:

_____ Second overhead _____ Calculators: Model TI- _____ _____ VCR/Monitor

Other Needs:

Please return by June 30 to:

Kathleen Cramer, 252 Peik Hall, 159 Pillsbury Drive SE
Minneapolis, MN 55455-0208
Fax: 612-624-7312
Any questions? Crame013@umn.edu or 612-624-7312

**Enhance Your
Teaching with
Free Mathline
Video Clips**

Ever wonder how a master teacher might introduce algebra? Or teach about rates of change? Or help young students expand their understanding of addition and subtraction? You can find out by accessing PBS Mathline's free video clip database on the Web at www.pbs.org/teachersource/math.htm. The clips show teachers in actual classrooms around the United States implementing Standards-based instruction. The database puts Mathline's comprehensive collection of videos and lesson plans from kindergarten through grade 12 at your fingertips 24 hours a day.

Viewers can search the entire video library by mathematical topic, teaching strategy, Mathline lesson plan title, and keyword. Search results list relevant clips from one to ten minutes in length that can then be viewed right on your computer screen. Viewers also have the option of viewing online the entire video from which the clip was drawn.

The new resource, developed in close collaboration with mathematics educators, is part of PBS's continued dedication to professional development. Mathline features a host of resources for mathematics teachers, all aimed at improving mathematics education. The new video resource is designed to make it even easier for you to learn and grow as you go along.

Carey Bolster, a consultant for PBS Mathline, notes, "This breakthrough technology will enable teachers to explore areas of both content and pedagogy based on topics they wish to examine. This initiative personalizes professional development, plus this resource is available 24-7 and it's free."

(News Bulletin, July/August 2000)

**Second Biennial
Cognitively
Guided Instruction
Conference****October 25-26,
2002**

Registrations are now being accepted for the Second Biennial Cognitively Guided Instruction Conference, October 25-26, 2002, in St. Paul. The conference will have two simultaneous tracks: one for those wishing to gain an overview of this professional development program, including an update on recent work in multidigit multiplication and division in the older grades; and the other for those wishing to gain more current insights into the research in number operations, algebra, fractions, measurement, and professional development implementation issues. The Project for Elementary Mathematics at Hamline University in collaboration with the Comprehensive Center Region VI Office at the University of Wisconsin-Madison will host the conference.

Registration fees are \$95 per participant (\$135 after September 30). For further information about the conference, hotels, or to register on-line, please visit the conference website at: www.mctm.org/cgiconference.

Mark Your Calendar

	<u>2002</u>	
6/20 – 6/22		NCTM Regional Leadership Conference, Minneapolis
10/18		MCTM Fall Conference, Eastview High School, Apple Valley
10/25-26		2 nd Biennial CGI Conference, Hamline University, St. Paul
	<u>2003</u>	
4/10 – 4/12		NCTM Annual Meeting, San Antonio, Texas
4/25 – 4/26		MCTM Spring Conference, DECC, Duluth MN
	<u>2004</u>	
4/22 – 4/24		NCTM Annual Meeting, Philadelphia, Pennsylvania
11/11 – 11/13		NCTM Regional Conference, Minneapolis Convention Center

Do We Have Your Correct Address?

MCTM strives to provide membership with current information regarding mathematics education in the state of Minnesota. To accomplish this goal, we need an accurate, permanent address for each member. Is your correct address printed on the label of this issue of *Mathbits*? If not, please contact Executive Director Arnie Cutler at 612-626-8326 or cutler@tc.umn.edu or visit MCTM's web site (www.mctm.org). Student MCTM members and members in transition are especially encouraged to provide us with a permanent address. Thank you for helping us stay in touch!

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