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# PCSM NEWSLETTER

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Leaders in Mathematics Education

January 2009

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PENNSYLVANIA COUNCIL OF SUPERVISORS OF MATHEMATICS

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## PRESIDENT'S MESSAGE

*From the President*

- Jane Wilburne

Happy New Year! We are pleased to announce the formation of our new website: [www.pcsmonline.org](http://www.pcsmonline.org) Check it out! PCSMonline is active and updated on the web to better serve the mathematics education community. We will have links to current issues in mathematics education and highlights of conferences and workshops across the state. Check the website continually for current information. I would especially like to thank Janie Zimmer and Carol Buckley for all their hard work and the tons of hours they spent structuring the web pages and gathering information for the website. They have done a fabulous job!

The 31<sup>st</sup> Annual PCSM meeting was a great success. Approximately 78 members attended the events held in conjunction with the Pennsylvania Council of Teachers of Mathematics Annual Conference in Seven Springs, PA in November 2008. The President Elect of NCSM, Diane Briars, was our feature speaker. Janie Zimmer, former Eastern

Director of the National Council of Supervisors of Mathematics, shared highlights of the National Mathematics Panel, and Jim Bohan presented highlights of the Standards Alignment System that can be located at <http://www.portal.state.pa.us/portal/server.pt?open=512&objID=4228&mode=2www>.

Of course, the meeting would not have been a success without the support of the book publishers and their representatives who are always so pleasant to work with. McDougal Littell/Houghton Mifflin provided breakfast, Prentice Hall the coffee break, and Scott Foresman the luncheon. Portfolios from Texas Instrument, lunch bags from EAI, and pens and bags from Harcourt were given to each attendee.

We have some new things planned for the upcoming year, so watch your email. The PCSM listserv is up and running thanks again to the work of Janie Zimmer.

I look forward to working with everyone and moving mathematics education in the right direction!

Sincerely,  
Jane Wilburne  
[jmw41@psu.edu](mailto:jmw41@psu.edu)

**Please check the date on the mailing label of the newsletter. If the date is 2009 (09) or earlier, it is time to renew your membership. Save money by renewing for three years. If each of us signs up a new member, our membership will double!**

### In this Issue:

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*From the Editor*

- Cathy Schloemer

Winter greetings to all!

As anticipated in the August newsletter, I have many “Snippets” to share with you in this issue. I hope you find these short summaries of recent news in mathematics education to be helpful. My goal is to be brief and to the point so you can quickly see whether or not you want to learn more about these topics. There are many interesting e-reports in the world of mathematics education these days. I hope I am truly providing “News You Can Use.”

Remember, this is your newsletter. What would you like us to share? Please send correspondence to me at:

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P. O. Box 884  
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724-465-7828  
[cschloemer@iasd.cc](mailto:cschloemer@iasd.cc)

## PCSM 2008 AWARDS

At the PCSM Annual Meeting at Split Rock on November 6, 2008, two distinguished members were honored. Receiving the Outstanding Contributions to PCSM award was John Martin, Professor Emeritus at Shippensburg University. John was a long-serving member of the PCSM Executive Board who, as a teacher educator, advanced the cause of leadership in mathematics education. His contributions to professional development of in-service teachers of mathematics K – 12 are well documented by the numerous Summer Institutes he directed at Shippensburg University. John regularly involved PCSM members as facilitators for the summer workshops. PCSM is proud to add John Martin to the list of distinguished PCSM awardees.

The recipient of the Outstanding Contributions to Mathematics Supervision Award is well known to mathematics leaders throughout the state of Pennsylvania and beyond. As Pennsylvania Mathematics Education Advisor at PDE from 1999 through 2008, Frank Marburger, was a passionate advocate for field

participation in all PDE mathematics initiatives. He was on the program for the PCSM Annual Meeting each year and made sure that members were well aware of the services of PDE and the opportunities for advancing mathematics achievement in their schools. Frank regularly visited intermediate units across the state and spread the message of improvement in mathematics curriculum, instruction, and assessment for all students. PCSM is privileged to number Frank Marburger among its membership and honored award winners.

Thanks to the members who took the time to make nominations for awards in 2008. Remember that it is never too early to recommend awardees for the Annual Meeting in November 2009 in Pittsburgh. Nominations may be submitted to Gen Battisto, awards chair, at 37 Reeder St., Mt. Pocono, PA 18344 or [genb@ptd.net](mailto:genb@ptd.net). Please note that this is a change in e-mail from prior years.

## PENNSYLVANIA COUNCIL OF SUPERVISORS OF MATHEMATICS

### 31<sup>ST</sup> ANNUAL MEETING MINUTES Thursday, November 6, 2008

The 31st Annual Meeting was held at the Split Rock Lodge, Lake Harmony, PA. It was held in conjunction with the 57<sup>th</sup> Annual Meeting of the Pennsylvania Council of Teachers of Mathematics.

A full breakfast was provided through the courtesy of McDougal Littell and Houghton Mifflin.

President Jane Wilburne called the meeting to order at 8:45 AM and welcomed the members present. President Wilburne thanked McDougal Littell and Houghton Mifflin for their generosity in providing the meal. She also thanked EAI Education for the thermal lunch bags, Texas Instruments for the portfolios, Prentice Hall for the coffee break and Scott Foresman for lunch.

Minutes from the 30<sup>th</sup> Annual Meeting were approved as distributed.

The Treasurer/Membership Report was distributed. It indicated a balance of \$14,208.51 as of October 31, 2008 and a paid-up membership of 95. There are 173 names in the database from 2003 on. Those listed in the directory are from 2007 on. The NCTM book mailing and web

page development accounted for increased spending during the past year.

Nominations and Elections Chair M. Foley reported that the Committee is nominating J. Zimmer for President-Elect and K. Hebert for Treasurer. Nominations were closed on a Battisto/Mowbray motion.

President Wilburne discussed ways in which we can spread the word on professional development. Anyone who is interested in helping can contact her.

President Wilburne also announced that the new website for PCSM makes its' debut today [11/6/08]. The website address is pcsmonline.org

There was no old business.

New Business:

Marguerite Gravez remarked that it should be made clear who is eligible to join PCSM. This might be part of the cause of declining membership. It was noted that this is made clear on the website.

The business meeting was adjourned at 8:59 AM.

The first presenter was former NCSM Eastern Representative Janie Zimmer who was introduced by Jane Wilburne. The topic was "The National Mathematics Report - What's Next?"

Jane Wilburne also introduced the next speaker: Diane Briars, President-Elect of NCSM. She presented "PRIME Leadership and NCSM Updates."

A coffee and pastry break was provided through the courtesy of Prentice Hall.

Kathy Hebert introduced the next speaker, Jim Bohan - PVAAS Core Team. He presented "The Standards-Aligned System Community."

The last scheduled speakers were Anita Kane, Senior VP of Program-Economics Pennsylvania, and Sharon Boyles, mathematics teacher at Shippensburg Area Senior High School. Their topic was "Integrating Economics and Financial Literacy within Mathematics."

Janie Zimmer and Carol Buckley presented the new PCSM website and highlighted its features.

Luncheon was provided through the generosity of Scott Foresman. President Jane Wilburne introduced and thanked the Scott Foresman representatives who were

present, as well as other publisher representatives in attendance.

After lunch, awards chair G. Battisto presented the Outstanding Contributions to PCSM award to John Martin. Jane Wilburne accepted the award for John Martin, who could not be present. She also presented the Outstanding Contributions to Mathematics Supervision to Frank Marburger. G. Battisto stressed the need to submit nominations for awards to her.

The luncheon was adjourned at 1:15 PM.

Respectfully submitted,  
John S. Mowbray  
Secretary



**PENNSYLVANIA COUNCIL  
OF SUPERVISORS OF  
MATHEMATICS**

**EXECUTIVE BOARD MINUTES  
Thursday, November 6, 2008**

Present: Jane Wilburne, Presiding, C. Buckley, A. Dowshen, H. Field, K. Herbert, J. Mowbray, J. Zimmer

This meeting was held at the Split Rock Resort, Lake Harmony, PA, in connection with the 57th Annual Meeting of the Pennsylvania Council of Teachers of Mathematics.

President J. Wilburne called the meeting to order at 1:30 PM.

The Treasurer and Membership Report indicated a balance of \$14,208.51 as of October 31, 2008. There are 95 paid-up members and 173 in the database. K. Herbert reported that the difference from last year to this year (\$4859.52) was because of the greater expenses this year of web site development and books sent to the membership. She indicated that we need to look into the possibility of placing PCSM membership and website information in the PCTM Magazine. J. Wilburne and she volunteered to do this. She also suggested that a crosscheck be made between our membership and the NCSM membership in the state. The report was approved on a J. Mowbray/A. Dowshen motion.

J. Wilburne thanked everyone for their cooperation and help. She then reported on the PCSM retreat which was

held at J. Zimmer's office in Reading on 9/9/08. She remarked that another retreat would be held, the focus of which will be the development of a membership action plan.

There was extensive discussion on the arrangements for the meeting in 2009. The consensus was that the meeting be a joint meeting with PAMTE on a Wednesday with the following schedule:

12:00 to 1:00 PM	Lunch
1:00 to 1:30 PM	General Meeting
1:35 to 5:30 PM	Sessions
5:30 to 7:00 PM	Awards Banquet

This was approved on an A. Dowshen/J. Zimmer motion.

J. Zimmer reported on the features of the PCSM website, which include what PCSM does, what you get if you join, and a volunteer form. Interested individuals can also join or renew on the website. Plans are being made to include: matrix of award recipients, nominations and elections, links to resources, links to Pennsylvania and national standards, links to professional and/or educational organizations and activity sponsors. A J. Zimmer/J. Mowbray motion for an additional \$1,000 for the website passed.

C. Schloemer is the NCTM representative for PCSM. J. Zimmer/J. Mowbray moved that she be reimbursed up to \$800 for whatever expenses her school district will not cover. Motion passed.

The meeting was adjourned at 3:30 PM on a J. Mowbray/A. Dowshen motion.

Respectfully submitted,  
John S. Mowbray  
Secretary



### **PCTM Report: Plans and opportunities for 2009**

The PCTM annual meeting in 2009 will be November 4-6, at the Radisson Hotel in the Greentree section of Pittsburgh. On the first day PCTM will be sharing time and space with the Math & Science Collaborative to showcase the Math Science Partnerships' work around understanding student thinking in Southwestern PA. This partnership will add a new dimension to the conference. A variety of sessions for all levels from elementary,

through middle school and high school, and into college will be offered. There will also be a variety of general interest sessions and featured speakers. PCTM is now seeking program proposals to be part of this newly formatted conference. Visit <http://www.pctm.org/conference.html> for more information.

PCTM is looking for volunteers to run the annual high school math contest that usually takes place on a Monday in May. This entails making up and scoring the exam questions. Last year 35 students attended the contest. If you are interested in volunteering, please contact Winnie Peterson at [wpeterso@kutztown.edu](mailto:wpeterso@kutztown.edu).

The assessment committee reports that PSSA-M is being developed as a gap assessment for IEP students. PDE is working on identifying who will be eligible to take this modified assessment. Four advisory committees are being formed; please contact Charlie Wayne ([cwayne@state.pa.us](mailto:cwayne@state.pa.us)) if you would like to participate in one of these committees. Also, GCAs (Graduation Competency Assessments) are coming to PA, and there is an RFP (Request for Proposal) for interested contractors. All PSSAs will be at the same time within one month, probably in April; check PDE's Web site for exact dates. Local assessments and student and district graduation assessments that were submitted to PDE are being studied by Penn State and results will be made public sometime in early 2009.

Respectfully submitted,  
A. Dowshen  
PCSM Representative to PCTM



### **Snippets: News You Can Use**

#### **(1) Utah Looks to Adopt Singapore Math**

From the Daily Herald [Utah], Tuesday, July 22, 2008. See

<http://www.heraldextra.com/content/view/274048/17/>

In an effort to improve students' mathematics achievement and ultimately prepare Utah students to fulfill as much as 10% of NASA's need for mathematicians (who must all be American), Utah is looking to adopt Singapore Math in grades K-8. Will Utah follow through, and will the tentative plans be effective?

**(2) Girls and Boys “Equal” in Math?**

From The Seattle Times, Friday, July 25, 2008. See [http://seattletimes.nwsources.com/html/nationworld/2008071972\\_math250.html](http://seattletimes.nwsources.com/html/nationworld/2008071972_math250.html) ; see study in *Science* at <http://www.sciencemag.org/cgi/content/full/sci.321/5888/494?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=+Janet+Hyde&searchid=1&IRSTINDEX=0&resourcetype=HWCIT>

Also see: From City Journal [A quarterly magazine of urban affairs, published by the Manhattan Institute, edited by Brian C. Anderson - see [http://www.city-journal.org/html/about\\_cj.html](http://www.city-journal.org/html/about_cj.html) ], Monday, July 28, 2008. See article at <http://www.city-journal.org/2008/eon0728hm.html>

U.S. girls are taking as many higher-level mathematics courses as boys and are on average achieving the same kinds of scores. However, white 11<sup>th</sup>-grade boys are scoring more at both the high and low extremes than girls are. The first article argues for similarities in average male and female performance, but the second article, in response, focuses on extremes in male performance, particularly the rate at which boys outnumber girls within the most gifted 1% of U.S. students

**(3) Multiplication Is Not Repeated Addition**

From Devlin's Angle -- see

[http://www.maa.org/devlin/devlin\\_09\\_08.html](http://www.maa.org/devlin/devlin_09_08.html)

Keith Devlin says that multiplication is not best conceived as repeated addition and that other experts have been saying the same thing for the past 40 years. He cites research that indicates teaching multiplication as “correspondence” rather than repeated addition is more appropriate. Read this thought-provoking article (which includes references to two of Devlin’s previous articles on the same topic) for concerns with the repeated-addition multiplication model.

**(4) Eight Grade Algebra for All in CA?**

**Source:** Association of California School Administrators (ACSA)

**URL:**

<http://www.acsa.org/FunctionalMenuCategories/Media/NewsReleases/AlgebraLawsuit.aspx>

**URL (Lawsuit Text):** <http://tinyurl.com/5wb4xa>

There have been many media reports about the plan for California to test all eighth-grade students for proficiency in Algebra I in the next three years, therefore essentially mandating that all students take Algebra I by grade 8. The testing, however, has been ended by the filing of a lawsuit declaring that the

State Board of Education overstepped its bounds in creating its testing mandate.

**(5) National Math Panel Forum**

October 6 & 7, 2008, as a follow-up to the National Math Panel’s, “Foundations for Success: Report of the National Mathematics Advisory Panel,” the first National Math Panel Forum meeting was held in Washington, DC to discuss (a) Teachers and Teacher Education, (b) Learning Processes, (c) Instructional Materials, and (d) Research Policies and Mechanisms. Go to <http://www.ed.gov/MathPanel> for more information about this and future National Math Panel Forums.

**(6) Will European Perspectives on Mathematics Education Inform U.S. Practices?**

**URL:** <http://tinyurl.com/5g8nnj>

European nations vary dramatically in their approaches to teaching mathematics, with at one end of the continuum the UK emphasizing mathematics as a vocational tool, and at the other end Hungary focusing on mathematics as a domain of pure thought and rigor. Experts from 15-20 European countries have met to discuss such differences in outlook and to try to determine teaching approaches that are most effective for students to learn problem solving. The article mentioned that, in general, heterogeneous classrooms with a collective learning environment improved students’ problem solving and that, contrary to common opinion, enthusiasm for mathematics and achievement in mathematics need not go hand in hand – one can have achievement without enthusiasm and also enthusiasm without achievement. What balance between practical application and theory - or fun and achievement - is best?

**(7) Number Sense – Spot the Dots!**

From the Washington Post, Monday, September 8, 2008, p. A 6. See

<http://www.washingtonpost.com/wp-dyn/content/story/2008/09/07/ST2008090701940.html>

According to a study funded out of Johns Hopkins University, one’s ability to determine in a split-second whether there are more blue dots or yellow dots in a picture can predict a student’s grades in math class. This basic kind of “number sense” is present in both humans and other animals and varies widely within a group, even those of nearly the same age. Researchers plan to explore whether test results

in pre-school children could be used as an early identification for children who might have difficulties in mathematics. (If you want to try this test for yourself, use the link below to go to a simulated test. *I found myself giving more weight to larger dots than to smaller, and more to yellow than to blue!* Ed.)

[http://www.nytimes.com/interactive/2008/09/15/science/20080915\\_NUMBER\\_SENSE\\_GRAPHIC.html](http://www.nytimes.com/interactive/2008/09/15/science/20080915_NUMBER_SENSE_GRAPHIC.html)

#### (8) Calculators in Elementary School

From Science Daily, Wednesday, August 20, 2008. See

<http://www.sciencedaily.com/releases/2008/08/080819160203.htm>

If students know at least some of their basic facts first, this study supports the use of calculators for practicing and for checking multiplication problems in grade 3. Many of the students in the study had never used a calculator before and also found the calculator to be fun.

#### (9) A Critical Commentary of the National Math Panel's Final Report

From FOCUS [The Newsmagazine of the Mathematical Association of America/MAA], August/September, 2008, Volume 28, Number 6, pp. 18-19.

If the National Math Panel's Final Report surprised you with its "back to basics" tone, then this article, Anthony Ralston's "A Nation Still at Risk," will pique your interest. Ralston comments on the "Traditional Math Warrior" composition of the NMP committee, as well as some of the NMP report's failings. He discusses the committee's unreasonable demand for "scientific" research in education, which as a social science cannot realistically have its variables so tightly controlled. He points out that, for example, the committee recommends continuing to teach the standard long-division algorithm but excludes reference to the many articles that question the usefulness of mastering the algorithm when calculators are so readily available. He also discusses the issue of declining teacher quality and the report's failure to even address this question.

(Need more National Math Panel follow-up? Go to the *Educational Researcher* [AERA], December 2008, Volume 37, No. 9. See [http://aera.net/publications/Default.aspx?menu\\_id=38&id=6562](http://aera.net/publications/Default.aspx?menu_id=38&id=6562)

where you will find a large number of articles, both critical and supportive, written in response to the National Math Panel's final report.)

#### (10) 8th Grade Algebra for All, and Other Moves to Higher Math: Some Unintended Consequences

URL: <http://tinyurl.com/4xnjah>

URL:

[http://www.brookings.edu/reports/2008/0922\\_education\\_loveless.aspx](http://www.brookings.edu/reports/2008/0922_education_loveless.aspx)

URL (Full report): <http://tinyurl.com/3mccv6>

There is a sense of egalitarianism in placing all students in 8<sup>th</sup> grade Algebra – equal opportunity for all, right? Tom Loveless argues that around 2 of every 26 students in such classes can be functioning about six years behind the other students and not only will gain little benefit from such a placement but will be part of the catalyst for the teacher to water down and slow down the class in order to meet everyone's needs. His concern is not a trivial one, as Algebra is now the most common U.S. 8<sup>th</sup> grade math course. In fact, Loveless estimates that about 120,000 students are in the lowest 10% in math performance over all but are enrolled in 8<sup>th</sup> grade Algebra. The full report (see above) is provocative, well written, and worthy of a read, especially if your school is pushing Algebra for all at a particular grade level.

#### (11) "Accelerated Math": Effects on Student Achievement

Source: Edweek – October 1, 2008

If you are thinking of adopting Accelerated Math as a tool to improved math achievement in middle school students, the What Works Clearinghouse has found it to have no discernible effect, despite its use in about 30,000 schools nationwide. The WWC has particularly rigorous standards for judgment, leading some to refer to it as the "Nothing Works" Clearinghouse. The article includes links to WWC's reviews of additional elementary and middle school mathematics programs, not just Accelerated Math.

#### (12) Being Good in Math Not Socially "Cool"

From The New York Times, Friday, October 10, 2008. See

[http://www.nytimes.com/2008/10/10/education/10math.html?\\_r=1&em&oref=slogin](http://www.nytimes.com/2008/10/10/education/10math.html?_r=1&em&oref=slogin)

Sara Rimer argues that American culture does not value talent in mathematics and that the perception is that U.S. students who do perform exceptionally well in the subject must be either "an Asian or a nerd." In order to be socially accepted, Rimer suggests,

American students don't try. U.S. students who participate in prestigious math competitions are nearly all immigrants or children of immigrants from countries that value mathematical talent.

In response (The New York Times, October 14, 2008. See [http://www.nytimes.com/2008/10/14/opinion/14herbert.html?\\_r=1&ei=5070&emc=eta1&oref=slogin](http://www.nytimes.com/2008/10/14/opinion/14herbert.html?_r=1&ei=5070&emc=eta1&oref=slogin)), Bob Herbert points out major problems facing our country – problems that, not too surprisingly, require thought and persistence to solve. After some scathing remarks about how Americans must be “busy with other things, like text-messaging while jay-walking,” Herbert reminds us of Neil Postman’s warnings about “amusing ourselves to death.” He concludes, “The end is near.”

**(13) Students Abroad, It Turns Out, Are Not Outperforming Americans**

From the Boston Globe, Sunday, October 26, 2008. See [http://www.boston.com/bostonglobe/ideas/articles/2008/10/26/grade\\_change/](http://www.boston.com/bostonglobe/ideas/articles/2008/10/26/grade_change/)

Jay Mathews argues that, despite much press to the contrary, U.S. education is far superior to that in such countries as India and China. He does admit, however, that the worst 30% of our schools are cause for concern. He says that, “we are beating the world economically,” but because we fail to educate those students in the worst schools adequately, our victory occurs “with one hand tied behind our back.” He goes on to support his thesis, noting that the U.S. does not function educationally in the same way as other countries, but that much of what we do works well – and it would work even better if we would dramatically improve the worst 30% of our schools.

(For additional comment on this topic, read Dr. Gerald Bracey [ <http://www.americatomorrow.com/bracey/gb.htm> ], also posted on his eddra listserv, Tuesday, December 2, 2008 and his more elaborate article, “Here's my take on the latest round of TIMSS” at <http://www.nabble.com/BRACEY-RESPONSE-TO-TIMSS-RESULTS-td20929010.html> .), posted December 9, 2008 at the eddra listserv.)

**(14) Senior Year Inviting More Math Choices**

Source: Edweek 11/19/09

If you are looking for some interesting ideas for senior-year courses, check out Sean Cavanaugh’s

article. He has some creative suggestions that sound appealing for both students and teachers.

**(16) Talk About ... Math!**

See: <http://www.talkaboutmath.org/>

The book *Talk About Math: How All Parents Can Help Their Children Learn Math* shows parents how to include measurement, geometry, statistics and arithmetic in everyday, fun activities while avoiding tension around math.

This companion website includes video clips of children counting to illustrate the book's first chapter.

*(The videos of young children counting would be helpful for both parents and early- childhood teachers in training – Ed.)*

Source: Math Forum Internet News – No. 13.47 (21 Nov 08)

**(17) Funds sliced, teacher sells ads on tests**

From San Diego Union-Tribune [SanDiego.com], Saturday, November 22, 2008. See <http://www3.signonsandiego.com/stories/2008/nov/22/1mc22rbteach114024-funds-sliced-teacher-sells-ads-/?zIndex=15188>

District funds tight? This article details ways to sell ads on exams and raise a few bucks for duplicating costs.

**(18) 2007 TIMMS Shows Continued Improvement in Math**

<http://www.nctm.org/news/content.aspx?id=17021>

For the latest news on how the U.S. is improving in TIMMS performance, read this summary provided by Gay Dillin at the NCTM website.

**Upcoming Conferences and Events:**

**PCSM Annual Conference**

November 4, 2009

Radisson Hotel (Greentree)

Pittsburgh, PA

More info at <http://pcsmonline.org>

**PCTM 58<sup>th</sup> Annual Conference**

November 4-6, 2009

Radisson Hotel (Greentree)

Pittsburgh, PA

For more information visit: [www.pctm.org](http://www.pctm.org).**NCTM Annual Conference**

Equity: All Means All

Washington, D.C.

April 22-25, 2009

[www.nctm.org/meetings/](http://www.nctm.org/meetings/)**IAS/PCMI Applications and Information,  
Summer 2009**<http://pcmi.ias.edu/current/program.php>

The 2009 Summer Session of the IAS/Park City Mathematics Institute will be held in Park City, Utah, from June 28 - July 18, 2009. This three week residential program is organized into six groups:

- Secondary School Teachers Program
- Designing Professional Development Program
- Undergraduate Faculty Program
- Graduate Summer School
- Undergraduate Summer School
- Research Program

These groups meet simultaneously, pursuing both individual courses of study and a meaningful amount of interaction. The rich mathematical experience combined with interaction among all participants results in greatly increased understanding and awareness of the issues confronting mathematics and mathematics education today.

The research topic for 2009 is "Arithmetic of L-functions" and the education topic is "Making Mathematical Connections."

Teachers are given full support and a stipend during the Summer Session. In addition, 6 quarter-credits of 400-level mathematics are available from the University of Washington for a nominal fee. Learn more about the Secondary School Teachers Program by viewing the information posted from previous years on the PCMI@MathForum site:

<http://mathforum.org/pcmi/hstp/>

Deadline for submission of applications is January 28, 2009. The IAS/Park City Mathematics Institute is an outreach program of the School of Mathematics at the Institute for Advanced Study (IAS) in Princeton, New Jersey.

Source: Math Forum Internet News – No. 13.45 (7 Nov 08)

**Call for Papers: "Models in Developing  
Mathematics Education" Conference in  
Dresden****URL:**[http://math.unipa.it/~grim/21\\_project/21\\_project\\_Dresden\\_2009.pdf](http://math.unipa.it/~grim/21_project/21_project_Dresden_2009.pdf)

The Mathematics Education into the 21st Century Project and The University of Applied Sciences (FH), Dresden (Germany) announce our 10th International Conference: "Models in Developing Mathematics Education," to be held 11-17 September 2009 in Dresden, Saxony, Germany in full cooperation with the Saxony Ministry of Education.

International Organizers are Dr. Alan Rogerson, Coordinator of the Mathematics in Society Project (Poland) and Prof. Fayez Mina, Faculty of Education, Ain Shams University (Egypt). The Chair of the Local Organizing Committee is Prof. Dr. Ludwig Paditz of the Dresden University of Applied Sciences.

You are warmly invited to attend and present a paper at our conference in the heart of the historic and beautiful city of Dresden.

The Second Announcement can be downloaded from <http://www.informatik.htw-dresden.de/%7Epaditz/SecondAnnouncementDresden2009.doc> For all further conference details and updates, please email Alan Rogerson at [alan@rogerson.pol.pl](mailto:alan@rogerson.pol.pl)

Source: COMET 9(30) – 5 December 2008

**12th Annual CMP Users' Conference**

February 20-21, 2009

Campus of Michigan State University

A draft of the agenda and the talks is on the web:

<http://connectedmath.msu.edu/conferences/users/index.shtml>


**ELECTRONIC RESOURCES**

**Let's Play Math!**

<http://letsplaymath.wordpress.com/>

As a homeschool mom who loves math, Denise Gaskins wants to help other homeschoolers see the variety and richness of the subject. Gaskins writes, "I hope this blog will be a place where we can play around with ideas about learning, teaching, and understanding math. (For me, it usually happens in that order.)"

The author homeschools her five children in rural Illinois, having tutored or taught primary- and secondary-level math and physics. Gaskin's blog posts, which date back to April, 2006, include

- How To Solve Math Problems
- Writing to Learn Math
- The Game that is Worth 1,000 Worksheets Free Multiplication Bingo Game
- Pre-Algebra Problem Solving: 3rd Grade
- The Golden Christmas Tree
- How to Teach Math to a Struggling Student
- The Game of Algebra
- Fraction Models, and a Card Game
- Pre-Algebra Problem Solving: The Tools
- The Mosaic Tile Mystery
- If It Ain't Repeated Addition, What is It?

*Editor's note: Very cool website – just a look at the post "How to Read a Fraction" alone is worth a visit to the site.*

From Math Forum Internet News No. 13.32 (9 Aug 08)

**"Teacher to Teacher" Resources**

Source: U.S. Department of Education

URL: <http://www.t2tweb.us/About.asp>

The U.S. Department of Education's Teacher-to-Teacher

(T2T) Initiative has been created by and for America's teachers. It supports teachers' efforts in the classroom through professional development and digital workshops

and by sharing relevant information through email updates. The Initiative is comprised of the following components:

**Teacher Workshops**

Teacher Workshops offer classroom teachers the opportunity to participate in free high-quality professional development... Participants share instructional strategies with prominent teachers from around the country in each content area and for each grade level. For more information, see

<http://www.t2tweb.us/Workshops/About.asp>

Materials from over 50 presentations are available online at

<http://www.t2tweb.us/Workshops/Sessions.asp?Content=Math>

Presentation titles include the following: "Connecting Patterns and Algebra"

(<http://www.t2tweb.us/Workshops/Sessions.asp?SessionID=190>), "Learning to Use Graphing Calculators to Develop Key Concepts"

(<http://www.t2tweb.us/Workshops/Sessions.asp?SessionID=162>), and "Number Sense"

(<http://www.t2tweb.us/Workshops/Sessions.asp?SessionID=335>), among many others.

**Teacher Training Corps**

The Training Corps consists of effective teachers and practitioners experienced in scientifically based instruction who provide on-site technical assistance and regional workshops for teachers and school district personnel. See <http://www.t2tweb.us/TTC/About.asp> for more information and

<http://www.t2tweb.us/TTC/Trainers.asp?Content=Math> for a list (and photos) of the math trainers.

**American Stars of Teaching**

American Stars recognizes and honors superior teachers with a track record of improving student achievement, using innovative instructional strategies, and making a difference in the lives of their students. Nominations are accepted January-March for this honor

(<http://www.t2tweb.us/AmStar/About.asp>).

**Digital Workshops**

Digital workshops provide educators free access to professional development anytime, anywhere. They model successful classroom teaching strategies and

support mastery of academic content combined with classroom application and relevant follow-up activities. Digital Teacher Workshops for Teachers of Native American Students includes materials for K-2

mathematics:

<http://www.t2tweb.us/NativeAmerican/home.asp>

Doing What Works: The Department is collaborating with the Institute of Education Sciences to identify research in particular content areas and determine effective classroom practices through Doing What Works ([www.dww.ed.gov](http://www.dww.ed.gov)). T2T's digital workshop, "Doing What Works for English Language Learners," is currently available at <http://www.t2tweb.us/DoingWhatWorks/Workshops.asp> "Girls in Math and Science" will be launched later this year.

National Math Panel: T2T has developed a short informational movie that teachers can share with parents and members of their communities about the recommendations of the National Math Panel. A digital workshop on the recommendations is being developed for teachers. See <http://www.t2tweb.us/Digital/NMP.asp>

### Teacher Updates

Teachers can receive electronic updates by signing up on the Teacher-to-Teacher Initiative's website. These e-bytes share developments in federal education policy; provide links to classroom teaching and learning resources; and communicate information about American Stars, Teacher Workshops and Digital Workshops. Visit <http://www.t2tweb.us/Updates/About.asp> to register.

Source: COMAP 9.19 (15 September 2008)

### HippoCampus

<http://www.hippocampus.org/>

HippoCampus is a project of the Monterey Institute for Technology and Education (MITE). Their goal is to provide high school and college students with high-quality, multimedia content on general education subjects, free of charge.

Math and science topics include:

- Algebra
- Biology
- Calculus
- Calculus (Spanish)
- Environmental Science
- Physics

- Statistics

Hippo Campus was designed as part of Open Education Resources (OER), a worldwide effort to improve access to quality education for everyone.

*(I tried a lesson from HippoCampus with my BC Calculus students. The content and presentation were good, but a bit fast-paced. Ed.)*

Math Forum Internet News No.13.42 – 10/17/ 08

**U.S. Dept of Education Free Resources**  
**Federal Resources for Education Excellence (FREE)**  
**Source:** U.S. Department of Education  
**URL:** <http://www.free.ed.gov/>

The U.S. Department of Education Federal Resources for Education Excellence (FREE) website contains over 1500 federally-supported teaching and learning resources, ranging from primary historical documents, lesson plans, science visualizations, math simulations and online challenges, paintings, photos, mapping tools, and more. This easily accessible information is provided by federal organizations and agencies such as the Library of Congress, National Archives, NEH, National Gallery of Art, National Park Service, Smithsonian, NSF, and NASA.

Visit [http://www.free.ed.gov/subjects.cfm?subject\\_id=33](http://www.free.ed.gov/subjects.cfm?subject_id=33) to peruse the mathematics resources

Source: COMET 9(28) - 19 November 2008

### Algebra Funsheets

URL: <http://www.algebrafunsheets.com/>

Algebra Funsheets are worksheets that integrate algebra skills with fun activities including sudoku, word finds, riddles, color patterns, crosswords, games, and matching

cards. Corresponding standard worksheets may be used for tests or quizzes. Full PDF sample worksheets are available under Samples. Browse the worksheets that are available to subscribers by clicking on each algebra unit listed:

- The Language of Algebra
- Matrices
- Solving Equations
- Solving Inequalities

- Proportions and Percents
- Functions
- Linear Equations
- Systems of Equations
- Exponents and Monomials
- Polynomials and Factoring
- Holidays

Source: Math Forum Internet News No. 13.48 (28 Nov 08)

### Mathematics Benchmarks, Grades K-12

<http://www.utdanacenter.org/k12mathbenchmarks/>

The American Diploma Project benchmarks for K-12 detail the content and skills students need to master throughout their schooling, and which they need for success in post-secondary education and the workplace. Model course sequences and sample tasks help educators see how the benchmarks can be implemented in mathematics classrooms.

Developed by the Charles A. Dana Center at the University of Texas at Austin, in partnership with Achieve, Inc.

Source: Math Forum Internet News 13.50 (12 Dec 08)

### GRANT OPPORTUNITIES

**Mathematics Education Trust: Grants for Teachers URL:**  
<http://www.nctm.org/met.aspx?linkidentifier=id&itemid=198>

Established by the National Council of Teachers of Mathematics, the Mathematics Education Trust (MET) offers opportunities to expand your professional horizons!

School In-Service Training Grants (Gr. K-12): Up to \$4000 to provide financial assistance to schools for in-service education in mathematics. (**Deadline:**

May 9, 2009)

Prospective Middle School Teacher Course Work Scholarships (Gr. 6-8; **deadline: May 9, 2009**): Up to

\$3,000 to college students preparing to be middle school mathematics teachers

Prospective Secondary Teacher Course Work Scholarships (Gr. 7-12; **deadline: May 9, 2009**): Up to \$10,000 to college students preparing to be secondary school mathematics teachers

Source: COMET 9(26) 3 November 2008

### Math Applets for Calculus at SLU

<http://www.slu.edu/classes/maymk/MathApplets-SLU.html>

Mike May, S.J., of Saint Louis University presents this collection of Java applets covering many of the standard topics in the calculus sequence. Some include sample worksheets and discussion topics. The most viewed applets look at Riemann sums, families of functions, and constructing surfaces by cross sections. May also offers a collection of applets for topics below college-level calculus:

<http://www.slu.edu/classes/maymk/AppletsSLUBelowCal.c.html>

Source: Math Forum Internet News 13.50 (12 Dec 08)

### Mathematics Materials for Tomorrow's Teachers (M2T2)

<http://www.mste.uiuc.edu/m2t2/>

Five mathematics modules for use in training future mathematics teachers. Aligned with the Illinois Learning Standards, the modules feature activities with paper and pencil, manipulatives, and Java applets.

The site offers a separate list of applets, as well as other materials from the modules.

*(In particular the applet for the volume of a rectangular prism is very nice – Ed.)*

Source: Math Forum Internet News 13.52 (26 Dec 08)

As always, thank you again to my faithful proofreader, Chris Czaplinski. Chris always has valuable suggestions on each issue of the newsletter, and I would not be able to write these without her capable help.