



Wahpe Woyaka pi

(Talking Leaf)

South Dakota Council Teachers of Mathematics Newsletter

Presidential Ponderings

Recently I had the pleasure of speaking to a group of pre-service teachers at SDSU. The occasion was a scholarship reception in honor of SDSU students planning to teach mathematics and science. As I pondered my “Welcome to the profession” speech, I tried to think of things that aspiring teachers should know.

Asking my students for suggestions revealed interesting insights. Some of the comments were content-oriented, perhaps influenced by a topic recently covered in class. Here’s what they told me:

- *Factoring*
- *Quadratic equation*
- *Critical thinking skills*
- *Pythagorean theorem*
- *How to solve all of the problems in the book.* I would suggest that you need to know MORE than just what’s in the book. You need to know what foundation is built upon (prior knowledge) and where it’s going next (application.)

Perhaps more interesting were their lists of “other” things that every teacher needs to know:

- *How to make math fun/exciting/interesting*

Sometimes that’s a tall order! You do what you can...

- *How to be a friend, laugh, have fun, etc.*

You can either laugh with them or cry about them—it’s your choice.

- *Activities are better than worksheets and hands-on is better than lecture*

I can endorse that idea from my own days as a student.

- *The less homework you give, the better we will like you*

Nothing self-serving about that comment is there?

SPRING 2008

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Calendar Notes:

- *SDCTM/SDSTA Joint Conference February 5-7, 2009*
- *PAEMST Applications due May 1, 2009*

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*You have to
like kids.*

*As the busy school
year rapidly comes
to a close, I wish
you a season of rest,
reflection, and
restoration.*

Presidential Ponderings, continued

- *Songs and math jokes make the learning easier.*

Can you sing the quadratic equation song? Ask me sometime...

- *How to put up with students*

They will make fun of your passion for mathematics. I say embrace, nay, celebrate your geekiness! Put it out there for the world to see!

And last, but not least:

- *You have to like kids*

If you don't genuinely like students, they can tell. And then it won't matter how much content you know.

I envy those college students. They are standing at the beginning of an exciting journey, filled with promise, ready to share their minds and hearts with tomorrow's students. It's energizing to hear their ideas and dreams. Enthusiasm is contagious!

As the busy school year rapidly comes to a close, I wish you a season of rest, reflection, and restoration. Go camping, take a class, plant a garden, read a book, do some stargazing on a warm summer night. I plan to do all of these. And then come back to my classroom refreshed and ready for another year of challenges.

Cindy Kroon
SDCTM President

Share the Wealth!

South Dakota Teachers have so much to offer one another! Please share an activity that "works" for you with SDCTM members!

Email submissions to: smcquade2@sfcss.org



PAEMST News Release

WHITE HOUSE HONORS THE NATION'S LEADING MATH AND SCIENCE TEACHERS

South Dakota's 2007 Presidential Awardee for Excellence in Mathematics Teaching, Allen Hogie of Brandon Valley High School, Brandon, South Dakota was announced on May 1, 2008 by President Bush.

The White House announced today that 99 educators will receive the annual Presidential Award for Excellence in Mathematics and Science Teaching for 2007. The teachers will be recognized in an awards ceremony as the nation's best seventh through twelfth grade teachers.

Awardees are selected from mathematics and science teachers in all 50 States and the District of Columbia, with the competition alternating each year between kindergarten through sixth grade teachers and seventh through twelfth grade teachers. After an initial selection process at the state level, a national panel of distinguished scientists, mathematicians, and educators recommend teachers to receive the Presidential Awards. The awards are administered by the National Science Foundation.

Each award recipient will receive a \$10,000 educational grant to be used at his or her discretion over a three-year period, and an all expense paid trip for two to Washington D.C. to accept the certificate. The teachers are in the Nation's capital from April 28-May 3, to receive the award and participate in a variety of educational and celebratory events.



The PAEMST was established in 1983 by the White House and is sponsored by the National Science Foundation.

Allen Hogie and Bill Gripentrog, outgoing SDCTM President, at the SDCTM/SDSTA Conference Banquet



This curriculum is available for free download from Facing the Future's website, www.facingthefuture.org.

Free Interdisciplinary Curriculum on Climate Change

To help your students understand core concepts and develop solutions related to climate change, *Facing the Future*, a nonprofit organization, has developed [Climate Change: Connections and Solutions](#), a curriculum funded by Hewlett-Packard Company. This curriculum is available for free download from *Facing the Future's* website, www.facingthefuture.org.

This curriculum was extensively field tested by teachers and students all over the world. It is interdisciplinary and standards-based and includes separate units for middle and high school. It is one of many global issues and sustainability curricula available from *Facing the Future*.

A classroom teaching guide, co-developed by Scholastic and *Facing the Future* and funded by HP, features some of the hands-on activities and critical thinking exercises included in the full curriculum. To access this teaching guide please visit www.scholastic.com/actgreen/teachers.

Sincerely,

Scholastic and *Facing the Future*





Conference on CAS in Secondary Mathematics

Computer algebra systems (CAS) have the potential to revolutionize mathematics education at the secondary level. They do for algebra and calculus what calculators do for arithmetic: simplifying expressions, solving equations, factoring, taking derivatives, and much more!

Attend the FIFTH U.S. Conference on CAS in Secondary Mathematics
Come explore the future of mathematics education!

- Discover how secondary and middle school teachers are using CAS in their own classrooms.
- Get classroom tested ideas developed for CAS-enhanced classrooms.
- Learn what other countries are doing with CAS.
- Interact with prominent CAS pioneers from the USA and beyond.

WHEN: Saturday, June 28, 2008 8:15 AM - 4:15 PM
Sunday, June 29, 2008 8:00 AM - 1:00 PM

WHERE: New Trier High School (Northfield Campus)
7 Happ Road Northfield, IL 60093 (approximately 20 miles from O'Hare Airport)

COST: Registration: \$250
(Fee includes continental breakfast, box lunch, snack, and conference shirt)

Optional Saturday dinner and entertainment details will be posted online

HOTEL: Renaissance Chicago North Shore Hotel, Northbrook IL.
\$119/night conference rate available until June 5, 2008
(rate available for reservations June 26 to June 28, 2008)

Book directly online at <http://cwp.marriott.com/chinb/meeecas/>

or

<http://cwp.marriott.com/chinb/usacas/>

1-800-468-3571 Mention group code "USACAS" or "MEECAS"

HOW: On-line registration, updates, and hotel information available beginning February 2008 at <http://meeecas.org>

For more information or questions,
contact: Ilene Hamilton <ihamilton@district125.k12.il.us>
Dan Hall <dhall@elmhurst205.org>
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Sponsored in part by:
Texas Instruments
Wright Group/ McGraw Hill

Organized by MEECAS (Mathematics Educators Exploring Computer Algebra Systems)

Computer algebra systems (CAS) have the potential to revolutionize mathematics education at the secondary level.



Register Now for NASA Teacher-Training in Robotics: Summer 2008

Training sessions will be offered in Rapid City, Pierre and Sioux Falls. Teachers have the option of choosing either Graduate/Undergraduate Credit through Augustana at a nominal fee or Certificate Renewal Credit through the State of South Dakota at no cost.

<http://sd.spacegrant.sdsmt.edu/2008RoboticsTrainingFlier.pdf>

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Geometry Haiku

(5 syllables, 7 syllables, 5 syllables)

My transformations:
Rotate, translate, and reflect.
Charming symmetry.

Cindy Kroon
Montrose High School



"Foundations for Success" ***The National Mathematics Advisory Panel's final report***

The National Mathematics Advisory Panel held its final meeting to release its final report to the president and the secretary of education. The final report, "Foundations for Success," focuses specifically on improving the teaching and learning of algebra in pre-kindergarten through grade eight, in an effort to improve achievement in higher levels of mathematics in high school. Findings of the report include recommendations to improve the areas of instructional policies, course content, learning processes, assessments, and professional development for instructors.

From the 16,000 studies reviewed for this report, the Panel presented 45 findings and recommendations based on the best evidence presented in these studies. Included in its findings, the report recommends increasing the emphasis on mathematics early in a student's educational process, specifically focusing on proficiency with numbers and knowledge of fractions. The Panel has offered a timeline of when students should master critical topics in order to succeed in algebra. The report also suggests either improving mathematics content knowledge of elementary school teachers, or utilizing teachers that specialize in elementary mathematics. In addition to improving the teacher and content quality in elementary and middle school math, the Panel recommends that the National Assessment of Educational Progress should be revised to provide an increased focus on mathematics skills critical to succeeding in algebra.

Supporting the findings of the Panel, Secretary of Education Margaret Spellings noted the positive correlation presented in the report between achievement in algebra and success in college and the workforce. She also emphasized the importance that all students succeed in mathematics, stating, "Studies have shown that it is effort, and not just inherent talent, that makes the critical difference between success and failure. When it comes to math, it seems hard science says it is truly worth the effort!"

To order a free copy of the report, go to <http://edpubs.ed.gov/> and search for the report by name.

The final report focuses specifically on improving the teaching and learning of algebra in pre-kindergarten through grade eight

The report contains 45 findings and recommendations from the National Mathematics Advisory Panel on numerous topics including instructional practices, materials, professional development, and assessments.



Chuck Norris Facts

Are your students repeating Chuck Norris Facts? Chuck Norris Facts are statements about martial artist and tough-guy actor Chuck Norris. Readers of a certain age may remember his action-adventure show, “Walker, Texas Ranger.” The "facts" involve absurdly exaggerated claims of Norris' toughness, attitude, and masculinity.

- When the Boogeyman goes to sleep every night, he checks his closet for Chuck Norris.
- Chuck Norris can lead a horse to water AND make it drink.
- Superman wears Chuck Norris pajamas.

It is a little-known fact that Chuck Norris is also a mathematical genius.

- Chuck Norris knows the last digit of pi.
- Chuck Norris can define the slope of a vertical line.
- When Chuck Norris does long division, there IS no remainder.
- Chuck Norris knows the value of C.
- A cold stare from Chuck Norris is -5 degrees. Kelvin.
- Chuck Norris doesn't HAVE to show his work.
- Chuck Norris can divide by zero
- Chuck Norris can calculate the sum of an infinite divergent series.
- Chuck Norris knows all the prime numbers.
- Chuck Norris can trisect an angle with his bare hands.
- Chuck Norris can square a circle.
- Chuck Norris knows the three numbers that make $x^4 + y^4 = z^4$ true.
- Chuck Norris can define the tangent of $\pi/2$.
- Chuck Norris can define a triangle using Angle-Side-Side.
- Chuck Norris can use the Pythagorean Theorem on ANY type of triangle.
- Chuck Norris counted to infinity. Twice

Cindy Kroon
Montrose High School



Print a copy of this form. Mail with check payable to SDCTM to:

Diana McCann
41876 Apple Tree Road
Springfield, SD 57062

Name _____

School Name _____

Subjects or Grades Taught _____

Addresses

Home _____

School _____

Mailing Address: _____ Home _____ School

Home Phone _____

School Phone _____

Fax Number _____

E-mail _____

Membership categories (Check only one)

- _____ Elementary School \$5.00
- _____ Middle School / Junior High \$20.00
- _____ High School \$20.00
- _____ Post Secondary \$20.00
- _____ Retired \$5.00
- _____ Student \$5.00



SDCTM Newsletter
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2008-2010

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