# (Wahpe Woyaka pi <br> (Talking Leaf) <br> South Dakota Council Teachers of Mathematics Newsletter 

## Presidential Ponderings

Welcome back to another school year. By now, everyone is back into the routine of teaching, writing lesson plans, attending IEP meetings, etc., etc. Another task to add to the routine this year should be getting to know the Common Core State Standards (CCSS). How do you feel concerning the new CCSS? Do you feel confused? Maybe that's a good thing. In the book Top 20 Teachers, it states "If there
 is no confusion, there is no learning." I had the opportunity to attend the Common Core Professional Development summer pilot hosted by the SD Department of Education. I commend the DOE for taking the initiative to provide training concerning the CCSS. They will continue to provide professional development every year until full implementation of the CCSS. Training sessions will be held in Rapid City, Aberdeen, and Sioux Falls during the 2011-12 school year.

Unless the DOE makes drastic changes to the training format, if you attend the training sessions with the goal of obtaining a more in depth knowledge of all of the new standards, you will be disappointed. The DOE training deals with the process necessary to understand, teach, and assess learning of the standards. After the training you will be able to unpack (now called disaggregate) the standards, develop units to teach the standards, and develop assessments for the standards. Each training site will use different standards to learn the process. Eventually, the work done at the training sessions, including the unpacked standards, will be available to all teachers. The registration deadline for this year's CCSS professional development is October 14.

South Dakota, along with 30 states, has joined the Smarter Balanced Assessment Consortium (SBAC). SBAC is developing assessments that will replace the current DSTEP test in 2015. SBAC recently released the Consortium's first draft of the content specifications for math and ELA/Literacy that will serve as a basis for the SBAC system of summative and interim assessments and its formative assessment support for teachers. There is an online survey concerning the content specifications. Gay Pickner from the SDDOE is also soliciting comments regarding the specifications. If you want to provide comments and feedback, please email Gay no later than September 14. She will compile a list of comments and report them to SBAC. A revised draft of the content specifications will be released in October. The math content specifications materials are available at: http://www.k12.wa.us/ SMARTER/Resources.aspx

SUMMER 2011

## Wahpe Woyaka pi

 Inside this issue:Presidential 2 Ponderings, continued

Share the Classroom 2 Treasures

PAESMT State Finalists 3

PAESMT Nominations 3 for 2012

Round Robin Activities 4
Daktronics Math 5
Teacher of the Year
SDCTM /SDSTA
6
Speaker Form
SDCTM /SDSTA
Registration Form
SDCTM Membership

SDCTM Contact Info

Calendar Notes:

- Daktronics Outstanding Math Teacher Applications due 12/1/2011
- SDCTM/SDSTA Joint Conference
February 2-4, 2012
- PAEMST Applications due May 1, 2012
"I think it is important to remember that we are not alone in South Dakota."


## Presidential Ponderings, continued

I think it is important to remember that we are not alone in South Dakota. Teachers in $40+$ other states are in the same predicament that we are. It may be wise to investigate what other states have done concerning implementation of the CCSS. I think it also important to understand the goal of the CCSS. Hopefully the end result of implementation of the new standards will be South Dakota students graduating mathematically prepared to continue their education or enter the work force.

Jay Berglund
SDCTM President


## Share the Classroom Treasures

"Sharing" the treasures has been quite popular at the SDCTM/SDSTA Conference. As you sort through your treasures and organize your life....don't forget about the conference. Start a "save it for the conference" box and plan to bring all your "extras" to the Share the Classroom Treasures.


PLEASE - No Textbooks or broken/nonworking equipment. Although it may feel like yours, make sure it is. If it's marked "School Property", please leave it in school.

## 2011 PAEMST State Finalists for Math

Washington, DC Amy Boutchee, a mathematics teacher from Riggs High School in Pierre, South Dakota, Kristi Lutgen, a mathematics teacher from Deubrook Area Schools, White, South Dakota, and Deborah Snook a mathematics teacher from Phillip High School in Phillip, South Dakota have been named a state finalist for the 2011 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST), the nation's highest honor for $\mathrm{K}-12$ teaching in these fields.

The Presidential Awards is one way of honoring outstanding teachers for the excellent work they do each year in helping to keep the United States competitive globally in mathematics and science. They have the knowledge, skills, commitment, and determination to bring out the best in their students. Evaluation results show that teachers who receive the Presidential Award use that recognition, honor, and award funds to grow professionally and to help improve teaching and learning of mathematics and science in their schools, districts, and states by taking on the roles of leaders, mentors, and scholars in their communities.

Previous South Dakota Awardees have become leaders on the state mathematics standards writing committees, other committees at the state level, national committees for the National Science Foundation and leaders in the South Dakota Council Teachers of Mathematics. The 2011 Presidential Awardees teach $7^{\text {th }}-12^{\text {th }}$ Grades.

Awardees will be announced in the Spring of 2012 and will receive a citation signed by the President, a paid trip to Washington, DC, to attend a week-long series of recognition events and professional development opportunities, and $\$ 10,000$ from the National Science Foundation. More information can be found at www.paemst.org.

## Nominations for 2012 PAEMST

Know a Great Elementary Math Teacher? Nominate him or her to receive the Presidential Teaching Award! We're looking for outstanding K-6 math teachers for the 2012 Presidential Awards for Excellence in Mathematics and Science Teaching. The awards are sponsored by the White House and administered by the National Science Foundation.

Every year up to 108 National Awardees each receive a $\$ 10,000$ award, a paid trip for two to Washington, DC to attend a week-long series of networking opportunities and recognition events, and a special citation signed by the President of the United States.

The program is now accepting nominations of K-6 teachers for the nation's highest honor for mathematics and science teachers. Anyone can nominate a teacher. Teachers should submit completed application materials by May 1, 2012.

## For more information, including nomination and application forms, please

 visit www.nsf.gov/pa or www.sdetm.org and click on the awards link.

## Diana McCann

SD Math PAEMST

## Math Coordinator

diana@thecoganhouse.com

For more info
visit
www.nsf.gov/pa.

## Round Robin Activities <br> Rectangular to Polar Round Robin

Student A receives an ordered pair in rectangular form and converts to polar form.

Student B takes A's answer and converts it back to rectangular form.
Do the answers agree? If not, find the error.
$(2,-2)$
$(0,1)$
$(1, \sqrt{ } 3)$
$(-1 / 4,-\sqrt{3} / 4)$
$(3,8)$
$(4,-7)$
ans. $(2 \sqrt{ } 2,7 \pi / 4)$
ans. $(1, \pi / 2)$
ans. $(2, \pi / 3)$
ans. $(1 / 2,4 \pi / 3)$
ans. $(8.54,1.21)$
ans. (8.06, 5.23)

## Polar to Rectangular Round Robin

Student A receives a point in polar form and converts to rectangular form. Student B takes A's answer and converts it back to polar form.

Do the answers agree? If not, find the error
( $3, \pi / 2$ )
( $1 / 2,3 \pi / 4$ )
$(-1,-\pi / 6)$
$\left(-2,270^{0}\right)$
$\left(4,210^{0}\right)$
$\left(14,130^{0}\right)$
ans. ( 0,3 )
ans. $(-\sqrt{ } 2 / 4, \sqrt{ } 2 / 4)$
ans. $(-\sqrt{ } 3 / 2,1 / 2)$
ans. ( 0,2 )
ans. $(-2 \sqrt{ } 3,-2)$
ans. (-9, 10.72)

## Cindy Kroon

Montrose High School
cindy.kroon@k12.sd.us

Daktronics, in conjunction with the South Dakota Council of Teachers of Mathematics, is pleased to sponsor the Daktronics Outstanding Mathematics Teacher Award in the state of South Dakota. The recipient of this award receives a plaque and a $\$ 1000$ cash award to support the award winner's efforts to teach mathematics with equipment or perhaps help to attend a conference or workshop. Middle school and high school teachers, who spend at least 50 percent of their schedule teaching mathematics, are eligible for this award. Application information is available at http://www.sdctm.org/

## AWARD SUBMISSION REQUIREMENTS

1.) A maximum two page, 12 font resume, which includes the following:
a) Personal information, including name, telephone numbers, email, addresses, etc.
b) Beginning with the most recent, list colleges and universities attended including post-graduate studies. Indicate degrees earned and dates of attendance.
c) Beginning with the most recent, list teaching employment history indicating time period, grade level and subject area.
d) Beginning with the most recent, list professional association memberships including information regarding offices held and other relevant activities.
e) Beginning with the most recent, list staff development leadership activities or other professional activities.
f) Beginning with the most recent, list awards and other recognition of your teaching.
2.) A maximum two page, 12 font, double spaced, personal essay that includes but is not limited to the following topics: 1.) Describe how you have inspired students in your mathematics class. 2.) Describe innovative teaching techniques involved in your classes 3.) Describe what types of technology are used in your class. 4.) Describe any professional development, as it pertains to mathematics, you have been involved in. 5.) Describe how you have helped students attend classes/workshops/contests/quiz bowls that pertain to mathematics or engineering or how you have helped students incorporate mathematics outside the classroom. (For example, MathCounts, math club, etc.)
3.) Provide 4 letters of recommendation one each from an administrator, parent, colleague, and student or former student. Recommendations must be dated and contain contact information for the writer. They are limited to one page, double spaced, one inch margins, and must be in 12 font. It is important that the information be as detailed as possible to adequately evaluate each application/nomination.
4.) The completed resume and recommendations need to be included in one file in either a word or PDF file in the order they are outlined above and emailed to Paul Kuhlman at paul.kuhlman@k12.sd.us.

The packet must be received by December $\mathbf{1}^{\text {st }}, 2011$
5.) The recipient for the 2012 Daktronics Outstanding Mathematics Teacher Award will be announced at the SD Science Teachers Association/SD Council of Teachers of Mathematics meeting in Huron on February 3, 2012.

## All speakers must also register for the conference.

Use this form (page 2) or download from www.sdctm.org or www.sdsta.org

| (First Name) | (MI) | (Last Name) |
| :--- | :--- | :--- |
|  |  |  |
| (Name of School/Affiliation) |  |  |
| Preferred Address: (circle one) | work |  |
|  |  |  |
| (Address) |  |  |
| (City) |  |  |
| (State) | (Zip Code) |  |
| (Work Phone) |  |  |
| (Email) |  |  |
| Website http:// |  |  |
| Include URL in program? Phone) |  |  |

> | (First Name) $\quad$ (MI) $\quad$ (Last Name) |
| :--- | :--- | :--- |

(Name of School/Affiliation)

| Length of presentation: | one hour | two hours |  |
| :--- | :--- | :--- | :--- |
| Date of presentation: | __ Friday | _ Saturday |  |
|  | Either day | _Both days |  |
| LCD projector? | Y_ YES |  | NO |

Only requested equipment will be provided. Speakers are encouraged to bring their own equipment. The conference cannot guarantee compatibility of electronic components
Speakers are expected to bring their own computers and software.

Grade level of presentation: $\quad$ K-5 $\quad \mathbf{6 - 8} \quad \mathbf{9 - 1 2}$
(please circle only one)

Title of presentation: $\qquad$
Description (max. 50 words): $\qquad$

If you have a last minute change or cancellation (after midnight Feb. 2, 2012) please call Crossroads Convention Center 1-800-876-5858
Speakers are requested to provide handouts for 30 on a first come, first served basis.
Return this form by OCTOBER 15, 2011 to:
Jean Gomer
Box 96

Modified
02/09/11
CK
email: jeanann@itctel.com White, SD 57276

I agree to comply with the guidelines in the "Minimum Safety Guidelines for NSTA Presenters and Workshop Leaders:" during my presentation. NSTA Minimum Safety Guidelines are located online at http://www.nsta.org/coru/safety.html

Signature $\qquad$ Date

Contact SDCTM with any special needs requests as defined by ADA by emailing Jean Gomer at jeanann@itctel.com before October15, 2011

## All speakers must also register for the conference: <br> Use this form (page 2) or download from www.sdsta.org or www.sdetm.org

Conference program information and booklets will be available for download from www.sdsta.org and www.sdctm.org

# ADVANCE REGISTRATION -- <br> Please print clearly. Postmark by January 20, 2012 

Name $\qquad$
Address
City, State, Zip
School/District $\qquad$ E-mail
Home phone $\qquad$ School Phone $\qquad$

## Please check the appropriate categories for membership, conference registration, and payment.

## 1. SDCTM/SDSTA MEMBERSHIP(s) and DUES

Please check the appropriate categories. You may join one, both, or neither organization.
Begin/renew SDCTM (math) for one year
Begin/renew SDSTA (science) for one year
$\qquad$ Middle School \$20
Middle School \$20
_ H
High School \$20 Post-Secondary \$20

High School \$20
——_ Student \$5 Post-Secondary \$20 Student \$5
$\qquad$ Retired \$5 Retired \$5
$\qquad$ Other \$20 Other \$20

## 2. CONFERENCE REGISTRATION

Please check the appropriate categories. Noon luncheon is included for each day that you register.
NOTE: The Friday night banquet is NOT included. Banquet tickets may be purchased for $\$ 20$ each.
I will attend the conference on (check one): $\qquad$ Friday $\qquad$ Saturday $\qquad$ Both days

SDCTM or SDSTA Member
Non-Member
One day $\$ 50$
___ Two days $\$ 75$
One day $\quad \$ 100$ Two days \$125

Student Member One day $\$ 15$

College credit will be available; information/registration available at the conference registration table.

## 3. PAYMENT

Make checks payable to SDCTM.
Purchase orders will NOT be accepted.
Membership(s) total
Registration
Friday Night Banquet (\$20 each)
$\qquad$
Eriday \$ $\qquad$
TOTAL ENCLOSED \$ $\qquad$
Requests for refunds must be received by January 20, 2012

## 4. SEND THIS FORM WITH PAYMENT

## Steve Caron

907 South $16{ }^{\text {th }}$ Street $\quad$ School phone (605) 725-8208
Aberdeen, SD 57401
Home phone (605) 226-2292
Email: steve.caron@,k12.sd.us
Advance registration must be postmarked by January 20, 2012

Please check here if you have also submitted a speaker proposal form for the 2012 Conference


## SDCTM

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

Diana McCann<br>31133 Bon Homme Road<br>Tabor, SD 57063

Name $\qquad$
School Name $\qquad$
Subjects or Grades Taught $\qquad$
Addresses

Home $\qquad$
$\qquad$
School $\qquad$
$\qquad$
Mailing Address: $\qquad$ Home School

Home Phone $\qquad$ School Phone $\qquad$
Fax Number $\qquad$
E-mail $\qquad$

Membership categories (Check only one)
$\qquad$ Elementary School \$5.00
Middle School / Junior High \$20.00
High School \$20.00
Post Secondary \$20.00
Retired \$5.00
Student $\$ 5.00$
Other \$20.00

www.sdctm.org

# 2008-2011 <br> SDCTM Executive Board Members 

SDCTM President
Jay Berglund
Gettysburg High School
(605) 765-2436
jay.berglund@k12.sd.us
SDCTM Past President
Cindy Kroon
Montrose High School
(605) 363-5025

Cindy.kroon@k12.sd.us
President-Elect
Ellie Cooch
Spearfish Middle School
ellie.cooch@k12.sd.ux
Vice-President
Steve Caron
Aberdeen Central High School
(605) 725-8208
steve.caron@k12.sd.us

Secretary Brad Andera
Aberdeen Central High School
(605) 725-8226

Treasurer
Diana McCann
(605) 589-3320
diana@thecoganhouse.com

Conference Coordinator
Jean Gomer
(605) 629-1101
jeanann@itctel.com

Elementary Liaison
Brenda Danielson
(605) 321-5707
brenda.danielson@k12.sd.us
Middle School Liaison
Becky Umenthem
Rapid City Public Schools becky.umenthem@k12.sd.us

Secondary Liaison
Bill Gripentrog
Watertown High School
(605) 882-6316 ext. 721
william.gripentrog@k12.sd.us

Post-secondary Liaison
Dan VanPeursem USD
dan.vanpeursem@usd.edu

NCTM Representative
Allen Hogie
Brandon Valley High School (605) 582-3211
allen.hogie@k12.sd.us

Webmaster
Cindy Kroon
Montrose High School
(605) 363-5025
webmaster@sdctm.org
Newsletter Editor
Sheila McQuade
Sioux Falls O'Gorman High School
(605) 336-3644
smcquade2@sfcss.org

