

Wahpe Woyaka pi

(Talking Leaf)

South Dakota Council Teachers of Mathematics Newsletter

Presidential Ponderings

Does anybody else hear cicadas and think about the start of a new school year? Or is it just me? The days are getting shorter and the nights are getting cooler. NFL football training camp has begun. Can you guess which event I am most excited about? Let me give you a hint: I just love brightly colored binders, crisp new notebook paper, the fragrance of new crayons, and pencils that still have their erasers.

Each new school year provides both students and teachers the chance to reflect on past experiences and move forward with a clean slate. Sometimes I wonder if we truly appreciate the opportunity as much as we should. What other profession enjoys a fresh start every fall? A new beginning with new students is an incredible opportunity. I like to take advantage of this fresh start to examine my own classroom both physically and academically. What worked last year? What needs to change? How can I keep the best ideas from last year and also implement improvements to make this year even better?

Summer break provides teachers the opportunity for both personal and professional renewal. Attendance at conferences and workshops is beneficial and a necessity for teachers seeking to grow professionally. I was fortunate to attend several outstanding events this summer. I appreciate the countless hours of preparation dedicated to planning and implementing a successful professional development experience. In addition to the program content, I always enjoy working with the many dedicated and talented teachers of South Dakota. Interacting with new teachers energizes me and gives me hope for the future of education in our state. I love the energy and contagious enthusiasm. New teachers keep us fresh and looking forward. Veteran teachers are equally inspiring. We can all benefit from their extensive classroom experience; they know what works. I always pick up new ideas (at least new to me) for my own classroom.

I have big plans and new ideas for the upcoming school year. Many of them came from you. Thank you for inspiring me! Keep in touch. And Happy New Year!

News Briefs:

The Governor's Blue Ribbon Task Force has met several times to explore teacher scarcity and education funding issues in South Dakota. Task Force co-chairs Rep. Jacqueline Sly and Senator Deb Soholt are coordinating the work of the committee. More information can be found online at <http://blueribbon.sd.gov/default.aspx>. Highly qualified and effective math teachers are a scarce and precious commodity. Once a task force report is released, you are urged to contact your SD legislators and voice your opinion regarding the task force report's contents and recommended action(s).

At the time of this writing, SBAC assessment results have not yet been released. It is very hard to wait! Everyone wants to know how their students performed. Once South Dakota's results are known, the real work will begin. How can we best help our students to meet the rigorous expectations of the Common Core (CCSSM)? Stay tuned: the target date for release of information is September 21, 2015.

Cindy Kroon
SDCTM President



FALL 2015-2016

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Late Breaking News: END OF COURSE EXAMS REPEAL

The South Dakota Board of Education met in August and discussed some changes to the end of course exams. The Board had their first reading on the repeal of the end of course exams language which is now currently in the Administrative Rules. They are taking input and testimony on the possible action, so if you agree or disagree with this possible action, now is your time to voice your opinion. The link to the suggested changes is here: <http://doe.sd.gov/board/packets/documents/082415/Item6doc1.pdf>. The proposed EOC change appears on page three of the packet. The proposed change reads as follows:

24:43:08:12. Adding waived course credits to high school transcripts. If the department has approved a waiver that allows a school district to teach a high school-level course to students below grade nine, credit for the course shall appear on each student's high school transcript with the unit of credit and a letter grade ~~upon passage of a state approved end of course exam~~ meeting the criteria for passage applied to the high school level. The unit of credit must be included in the credits required for high school graduation and the letter grade must be calculated in the high school cumulative grade point average. Source: 32 SDR 196, effective May 28, 2006; 33 SDR 236, effective July 5, 2007. General Authority: SDCL 1-45-13, 13-3-47, 13-5-34. Law Implemented: SDCL 13-5-34.

"...if you agree or disagree with this possible action, now is your time to voice your opinion."

SDCTM does not have an official position on this issue. Members are encouraged to express their opinions to the SDBOE and/or SDDOE whether in favor or opposed to the proposed change. At the time of this writing, the comment period has not yet been announced. The comment period for the proposed changes will be announced in the next few weeks via the Monday update and EdOnline. As a mathematics professional, your insight would be valuable to the SDBOE. Please make your opinions known to those who are tasked with making this important decision.

PAEMST Nominations

The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) program is the highest honor bestowed on teachers by the U.S. Government. Nominating PAEMST candidates is an integral component to a successful candidate pool. With your help, we hope to recognize and honor South Dakota's best math teachers.

Nominations for mathematics and science teachers of grades K-6 will open in Fall of 2015. To submit a nomination for an exceptional teacher, complete the nomination form available on the [PAEMST website](#), and submit the teacher's name, email address and school contact information. If you know more than one teacher deserving of this award, you may submit multiple nominations. The **2015-2016 nomination deadline is April 1, 2016**, and the **application deadline is May 1, 2016**. Teachers may also apply directly at www.paemst.org.





K-5 Corner

Greetings K-6 friends!! I hope that you enjoyed your summer and are ready to start the school year again. There has sure been a lot of news about the shortage of teachers in South Dakota. We all know it is primarily based on pay. We all take a lot of pride in our jobs and it can be discouraging hearing how nearby states have higher pay. We are here in this beautiful state right now. We are all making a difference in the lives of South Dakota students. We can take a lot of pride knowing we are doing our best to give our students a good education regardless of pay in other states. Let's hold our heads high, take some pride in what we do, and know that we all make a difference.

Even though money in districts may be tight, there are still many districts that are allowing in-state travel. That makes for a great opportunity to try to attend the SDCTM conference in February. I would recommend getting it all ok'd early in the year. That way in the winter time all of the sudden you have a fun conference to look forward towards to give you some relief and some refreshing information and ideas to use to be ready for spring.

Here is an idea to think about this school year. Try to think of a concept that takes a lot of practice and can be tough to master in a week long lesson or so. Use it as a slow lesson throughout the year. Teach it in small activities daily. You would be amazed how many students can master some tough tasks doing this. When I taught 5th grade there were a large amount of students who could not accomplish long division. I would put 1 long division problem in my daily warm-up work. Some students could do it, but the majority were lost. I would model it the first few weeks and as students caught on I'd have them model it. It always surprised me how many students began catching on as more and more students would model the single division problem. As the year went on the majority of the class could succeed in long division. They could divide gigantic division problems. This was accomplished as a small part of our daily warm up. We would just keep up on that one special skill all year long. I encourage you to think of a skill you know students need a lot of practice at. Try and practice it for a small part of your daily routines and I bet you will be surprised on how the skills develop!

Thank You!

William Kliche
SDCTM Elementary Liaison



"Let's hold our heads high, take some pride in what we do, and know that we all make a difference."

Share the Classroom Treasures ... Fall Purging

"Share the Classroom Treasures" has been a huge success at recent conferences. It is amazing the number of items that change hands! What a wonderful way to support one another. As you sort things and get organized for the school year, don't toss things that may be of use to a fellow teacher. You can bring your "Treasures" that are no longer of use to yourself...to the conference next February.





6-8 Highlights

Greetings fellow middle school math teachers!

My name is Crystal McMachen and I am the new Middle School Liaison. I have been teaching in the middle school setting since 2001. I have taught all middle school subjects and grades but math and science are my favorites.

I love the beginning of the school year. It is my absolute favorite time of year. My goal every fall is to get all students excited about math class, even the ones who confess that they don't really like math very much. The following activity is a great back to school activity to help kick start the love of math or it could be used later to help rejuvenate the students and remind them that learning can be fun! This lesson focuses on an experiment where the students make dots. After performing the experiment, the students graph their data, and then a discussion takes place about the relationship between the variables. The great thing about this lesson is that you can tailor it to meet your specific grade level and standards. For sixth and seventh grades your focus can be on unit rates and plotting points on a coordinate plane. For eighth grade you can go more into depth when talking about relationships between variables and if this relationship is positive, negative, or has no relationship. You can also talk about linear and nonlinear relationships. Your discussion can also lead to how experimental data is not perfect and how things do not go as planned (pencil breaks or arms get tired) and how this can affect your data and how your graph tells that story.

Learning Objective: Performing an experiment, recording the data in a table, plotting the data on a coordinate grid, and interpreting the data from the table and graph.

Standards:

CCSS.MATH.CONTENT.6.RP.A.1
CCSS.MATH.CONTENT.6.RP.A.2
CCSS.MATH.CONTENT.6.RP.A.3.A
CCSS.MATH.CONTENT.7.RP.A.1
CCSS.MATH.CONTENT.7.RP.A.2.A
CCSS.MATH.CONTENT.8.F.A.1
CCSS.MATH.CONTENT.8.F.B.5

Materials: 1 stop watch, paper, graph paper, sturdy writing utensils

Time Required: 1-2 class periods (depending on the depth)



"My goal every fall is to get all students excited about math class, even the ones who confess that they don't really like math very much."

continued



Process:

Ask the students to predict how many dots they think they can make in one second. Jot their ideas down someplace visible.

Have each student fold a piece of paper into four sections. Label the front side sections with 1 second, 5 seconds, 10 seconds, and 20 seconds. Label the back where the top half is 30 seconds and the bottom is 60 seconds. You can modify the time increments however you see fit. Some years I have even gone up to 120 seconds if the students were really enjoying themselves.

Keep time for the students. Give them one second to make as many dots as they can. Have them keep their dots within the section labeled 1 second. This one goes really quick!

Have the students count the number of dots. Make sure they record this number for later. Here you can bring in the idea of a unit rate.

Repeat this process for the other time frames. As you do this, have the students make predictions based upon their previous trials. Have the students justify their predictions using proportional reasoning.

After the dots have been made, counted, and recorded, it is time to make tables and graphs.

Depending on your students and their abilities you can do a wide range of things. Since I do this towards the beginning of the year, I have used this as a formative assessment to see if they are able to organize their data in a table and if they can make an accurate graph with time as the independent variable and number of dots as the dependent.

I usually give the students no directions, just that I want them to make a graph. This allows me to see who truly understands what makes a good graph. I look for appropriate and accurate scales, labels, title, and correct plotting of points. Sometimes students make bar graphs. We then discuss when line graphs are more appropriate than bar graphs and vice versa. After the students make them we talk about the similarities and differences that they see in the graphs. From this we are able to determine what makes a good and accurate graph.

Students can also find unit rates (dots per second) for each trial. Does the unit rate change or does it stay the same throughout? How do you know? How does it show up in the table and the graph?

Some other discussion questions could be:

Is it appropriate to connect the dots? Why or why not?

Is there a relationship between the time and the number of dots? If so, is it positive or negative?

How can you tell on a table or graph that a pencil broke or something else went wrong?

Could we figure out the unit rates for each trial and make a graph from that data? How would that graph differ from the one we made?

I hope you give this activity a try. The great thing is you can take this “Dot Lab” and customize it to meet you and your students’ needs. I hope you have fun watching your students while they try to “out dot” their neighbors. It is always a great day when you can make learning fun!

I hope your year is off to a great start!



9-12 Spotlight

Summer has gone by too fast, but they always do. The summer of 2015 has been the most memorable summer ever! Back in 2012 I was nominated by Lori Keleher and Allen Hogie for the Presidential Award for Excellence in Mathematics and Science Teaching. Over the course of the 2012-2013 school year I completed the extensive application process. This included a 45 minutes unedited, uncut video of me teaching, 5 written narratives topics included: mastery of content, instructional strategies, assessments, reflective practices, and leadership, 12 pages of supplemental materials, and 4 letters of recommendation from a student, parent of a student, teaching colleague, and an administrator. I completed and submitted the application in April of 2013, then in July of 2013 I was named one of three of South Dakota's state finalists along with Lori Wagner and Bjorg Remmers-Seymour. Then from July 2013 until July of 2015 I waited and waited and waited....finally July 1st, 2015 I heard the news I was the recipient of the 2013 PAEMST!! I had to read and reread the email over and over again. I honestly couldn't believe it. I am so honored to be chosen and humbled because I know the tough competition I was up against. At the end of July I traveled to Washington DC to receive my award with the 100+ other math and science teachers. During my week in Washington DC, I was privileged to partake in numerous award and honor ceremonies with the best keynote speakers and got to take advantage of amazing professional development activities from the White House Office of Science and Technology Policy, National Science Foundation, National Academies of Sciences, Engineering and Medicine, 100Kin10, and many other great organizations. I look forward to putting what I have learned to use in my our classroom and sharing with other math and science teachers. The application process of for the 2016 PAEMST will open soon, please consider nominating an elementary teacher.

In July Samra Trask and I attended the NCTM Affiliate Leadership Conference in Phoenix, AZ. During this conference we got meet and talk to the President of the NCTM, Diane Briars. During this 3 day workshop, we presented ways to make SDCTM better!!! We got to brainstorm with other leaders from all over United States. Samra and I are excited to put these new ideas into action with SDCTM – stay tuned!

Wishing you all a great 2015-2016 school year!!!

Lindsey Brewer
SDCTM HS Liaison
Lindsey.Brewer@k12.sd.us



"I am so honored to be chosen and humbled because I know the tough competition I was up against."





Higher Ed Viewpoint

As I compose this letter, many high schools will be starting this week and the university students are off and running. I trust everyone had a productive and restful summer, if you can use both of those descriptors in the same sentence.

From higher education, we won't know exact numbers until after census dates, but early indicators are that the high schools are quite engaged in the dual credit programs offered at the various universities again.

Another topic that I am sure has caught a lot of your attention in the newspapers lately would be the issue of alternative certification for high school math teachers. You are all well aware of the problems that many superintendents are having in filling open math positions. Along with forming the Blue Ribbon Task Force, the state is also looking into other ways to help fill these voids. The following is our best understanding of what is going to be coming down as long as the Legislative Rule Committee doesn't have an issue. For future teachers wishing to teach above Algebra II, the guidelines will be to pass the Math Praxis at the higher score approved about 18 months ago, or the Middle School Math Praxis as well as complete the 7-12 mathematics education program. For future teachers wishing to teach Algebra II or lower, all they need to do is pass the Middle School Math Praxis exam. When the new Intermediate Math examination is developed by Praxis, they will include that into the state statute as the primary option for this alternative certification. Ultimately, it will end up creating two pathways when in the past there was only the one. If one of our students can't pass the Math Praxis then they could still student teach with an acceptable score on the Middle School or Intermediate Math Praxis. At this point, I have not seen a Middle School Math Praxis exam or the content so I can't comment if this is a good idea or not. I guess one additional piece of information I would like to pass on is that students need to have realistic expectations when they come to our universities. Many students scoring a math sub-score of 24-25 struggle with our math programs. You may be able to help guide them into studying harder with that piece of information?

Also, as many of you are aware, students can now use their Smarter Balance Assessment scores as another placement tool in addition to their ACT score or Accuplacer Exam. Here is how the SB math sub-scores are used for placement into the different entry level math courses: Math 021(Basic Algebra) 0-2542, Math 101 (Intermediate Algebra) 2543-2627, Math 095 (Pre-College Algebra) 0-2627, Math 102 (College Algebra), 103 (Quantitative Literacy), or 104 (Finite Mathematics) 2628 or higher. The whole report on SB and placement can be seen at this link. https://www.sdbor.edu/theboard/agenda/2015/April/33_BOR0415.pdf

I hope to see you all in Huron again this winter. Last year the weather was perfect so everyone should just extrapolate that data and plan on being there this year as well. ☺

Best wishes,

Dan Van Peursem

SDCTM Liaison to Higher Education
Professor and Dept. Chair
The University of South Dakota



“...early indicators are that the high schools are quite engaged in the dual credit programs offered at the various universities.”



SD Teacher of the Year

We have all experienced great teachers and mentors in our journey as educators. This past year I was selected to represent South Dakota at its 2015 Teacher of the Year. I am humbled to be considered part of such a distinguished group of practitioners who ignite curiosity, create opportunities for students to explore and work to their potential, build relationships, and inspire joy in the hearts of students.

The TOY program brings recognition to our profession that is personally invigorating. For those who have been nominated, it fuels the fire inside, affirms our teaching practice, and applauds the hard work and effort students have put forth in our classrooms. This recognition enacts courage. The type of courage John Wayne referred to when he said, "Courage is being scared to death but saddling up anyway." This courage was necessary for me this year in fulfilling the South Dakota Teacher of the Year role. What follows is a snapshot of my experiences.

First, I had the opportunity to testify in both the House and Senate Education committees on behalf of the DOE regarding standards alongside the other regional teachers of the year.

Second, I networked with other STOY's in Phoenix where we discussed many issues and perfected our teacher voices. A special gift was given to each us in Phoenix. A full tuition scholarship for degree completion (graduate or undergraduate) online or at any University of Phoenix location was awarded to each of us to give away to someone who we felt deserving of an education. I awarded my scholarship to an education assistant in my building who was a single divorced mother of two wonderful girls. She desired to complete her teaching degree now that her kids were of school age, and become a classroom teacher herself.

Third, I traveled to Washington, DC to meet the President of the United States and discuss important education issues with policy teams and congressmen such as Mike Rounds and John Thune. Standing in the Roosevelt room just outside the Oval Office waiting to enter and shake the hand of the President was awe-inspiring. When my turn came to greet the President, I entered the Oval Office where he asked me what I taught and we shook hands and turned for a photo opportunity. As we did this, I told the President "thank you for your public service and I pray for you daily". This caught him off guard a little and he lost some composure and stated "thank you, I surely need that".

Fourth, I was allowed to attend an Education Commission of the States conference in Denver. Here I continued to network with other STOY's and hear what other states are doing to improve education for all students. Sessions I found particularly interesting addressed student social and emotional needs, poverty, and funding for education.



"Standing in the Roosevelt room just outside the Oval Office waiting to enter and shake the hand of the President was awe-inspiring."

continued



SD Teacher of the Year *continued*

Next, I was sent to Space Camp in Huntsville, Alabama where I met many new international teachers, learned how to write cross-curricular lessons involving mathematics and science, participated in International Space Station simulations, lunar landing simulations, flight simulations, and underwater rescue simulations, and continued to bond with my STOY family through many various challenges.

Finally, my favorite experience during the school year was having the opportunity to share my teacher voice in South Dakota with over 135 students who were graduating from or entering into an education program at South Dakota public universities. I came away from these experiences motivated and ready to take on the world due to the enthusiasm, energy, and professionalism of these students. I am confident that students they will teach will be in good hands.

As 2015 South Dakota Teacher of the Year I have been blessed many times over. Apart from working through the National Board Certification process and now the renewal process, the TOY journey has been the best professional development experience I have had the opportunity to participate in.

Allen Hogie
2015 South Dakota Teacher of the Year

“...the TOY journey has been the best professional development experience I have had the opportunity to participate in.”





NCTM – THE BENEFITS OF MEMBERSHIP

If you are not already enjoying the benefits of membership in the National Council of Teachers of Mathematics (NCTM), we invite you to learn more about membership and join today!

Some of the benefits of membership include:

- Print and online access to award-winning journals written specifically to your grade level: Teaching Children Mathematics (PK-6), Mathematics Teaching in the Middle School (5-9), Mathematics Teacher (9-12), Journal for Research in Mathematics Education, and Mathematics Teacher Educator
- Classroom-ready activities and materials with online teaching resources, plus a searchable database of challenge problems
- Discounts on hundreds of books, posters, and teaching materials
- Discounts on professional development opportunities: Annual Conferences, Regional Conferences, Interactive Institutes, and online seminars
- Grant opportunities exclusively for members: annual Mathematics Education Trust (MET) grants from \$1200 to \$24,000 are given to fund member project proposals Support of a network of 80,000 mathematics educators from around the country and the world

Pre-service student members have several additional benefits including:

- Additional discounts on e-membership and add-on journals
- FREE registration to NCTM Regional Conferences
- MET Grant opportunities exclusively for student members

Visit www.nctm.org/membership for more information on all of the benefits of NCTM membership.

*“Classroom
ready activities
and materials...
Discounts...
Discounts....”*

Math in Everyday Life

Once in a while students will surprise us by connecting what we have done in the classroom with something they encounter outside of school. I know that we can all find examples of math in everyday life, but there is something special about that moment when the kids share something unsolicited with us. Below is a screen shot sent to Cindy Kroon earlier this summer.

Please share how your students have connected their lessons to their everyday life.



Continue your education as a Coyote!

University of South Dakota School of Education



Undergraduate Teaching Majors

- K–8 Elementary Education
- 7–12 Biology, Chemistry, Earth Science, English, History, Mathematics, Physics, Political Science, Speech Communication, Theatre
- K–12 Art, French, German, Music, Physical Education, Spanish, Special Education*

*Double Major: The Special Education major must be paired with Elementary Education or a 7–12/K–12 teaching major.

Undergraduate Non-Teaching Majors

Kinesiology and Sport Science
(Exercise Science or Sport Management Specialization)

<http://admissions.usd.edu>

Curriculum and Instruction

- M.A. Elementary Education, Technology, Secondary Education, Special Education
- Ed.S., Ed.D. Curriculum and Instruction

Counseling and Psychology in Education

- M.A., Ed.S., Ph.D. Human Development and Educational Psychology
- M.A., Ed.S., Ph.D. Counseling
- Ed.S., Ph.D. School Psychology

Educational Administration

- M.A., Ed.S., Ed.D. PK–12 Principal, Director of Curriculum, School District Superintendent
- Ed.S., Ed.D. Director of Special Education
- M.A., Ed.D. Adult and High Education

Kinesiology and Sport Science

- M.A. Kinesiology and Sport Science
(Exercise Science or Sport Management Specialization)

www.usd.edu/grad



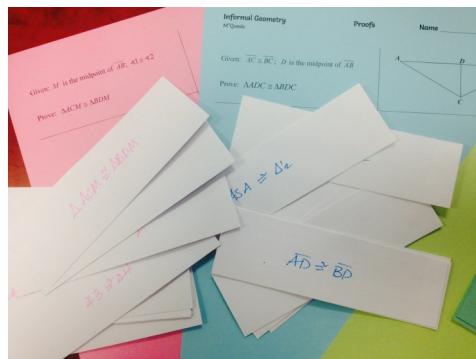


Teaching/Learning to Write 2 Column Proofs

Teaching and learning to complete 2-column proofs is stressful, for teachers and students. I have several activities/lessons that I use to build up to having students complete a 2-column proof on their own. My favorite is activity is “Puzzle Proofs”. I select 5 or 6 proofs for the students to complete in a class hour. Students work in small groups to arrange the statements and reasons of a short proof in a logical order. I color code the proofs so that I can quickly set up to reuse them for the next class. I run each proof on a different color – 1 per group (these are reusable...students do not write on them). I also run the proof off on white paper – 1 per student. I cut colored index cards in thirds and write each statement and each reason on a strip of index card (the colored index cards match the color of the paper used for the proof). When I don’t have colored index cards, I use white cards and markers colored to match the paper the proof is on. Each student group is given a proof and corresponding cards (all groups complete the proofs in the same order). Working as a team, they place the cards in what they feel is the correct order. I roam the room while they work and listen to their conversations. I only “step in” if they become frustrated or if they are totally off track. Once they complete a proof, I check it before giving them the white sheet on which they write up the proof. I also use this time to have discussions about alternate ways to complete the proof. When I write the cards up, I write separate cards for each given, however, I do allow them to place all givens together on the same line. When I use this activity as a review towards the end of the unit/chapter, I will include more reasons that steps (both *AAS* and *ASA*) or statements that are not valid.

I have tried to run off student “handouts” with all of the proofs. I have found that even though it saves paper, kids will not work on one proof at a time in the order that I want them to work through the proofs. By withholding their copy of the proof until after I have approved of their placement of the cards, I am assured that what they have before them is correct before they write it out as an example of a completed proof.

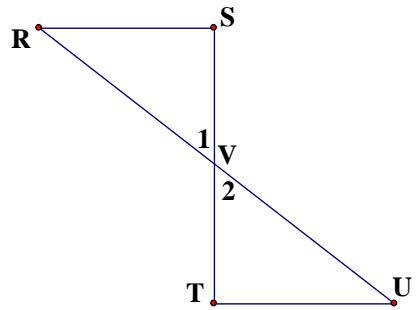
Sheila McQuade
O[†]Gorman High School



“I only ‘step in’ if they become frustrated or if they are totally off track.”

Given: $\overline{RS} \perp \overline{ST}$; $\overline{TU} \cong \overline{ST}$;
 V is the midpoint of \overline{ST}

Prove: $\Delta RSV \cong \Delta UTV$



Cards for Puzzle Proof

$\overline{RS} \perp \overline{ST}$	Given
$m\angle S = 90$	Def ⁿ / \perp lines
$\angle S \cong \angle T$	Def ⁿ / \cong angles
V is the midpoint of \overline{ST}	Given
$\overline{SV} \cong \overline{TV}$	Def ⁿ / midpt
$\angle 1 \cong \angle 2$	vert $\angle s \cong$
$\Delta RSV \cong \Delta UTV$	ASA \cong Δ 's
$\overline{TU} \cong \overline{ST}$	Given
$m\angle T = 90$	Def ⁿ / \perp lines

2016 Daktronics Outstanding Mathematics Teacher Award

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 1st, 2015**

- 5.) The recipient for the 2016 Daktronics Outstanding Mathematics Teacher Award will be announced at the **2016 SDCTM/SDSTA Annual Professional Development Conference in Huron**.



Marian Fillbrandt SDCTM/SDSTA Conference Stipend

Marian Fillbrandt graduated from South Dakota State in 1933 with a Mathematics major. She spent many years teaching math and science. She established the Fillbrandt Endowment at South Dakota State to help South Dakota math and science teachers. A committee of faculty, along with Jeff Nelson with the SDSU Foundation, has determined that this endowment can be best utilized by providing \$400 stipends to second through fifth year math and science teachers to attend the SDSTA/SDCTM conference. This will allow new teachers in rural areas to interact with their colleagues with similar professional interests.

The \$400 stipend intends to defray the costs of conference registration, accommodations, a substitute teacher for the Friday of the conference if a district will not provide one, and other costs associated with conference attendance.

If you are selected for this stipend, you will be required to write a brief report at the end of the conference stating how the stipend benefited you and what you learned at the conference that you plan to use in your classroom. If you are selected, but are unable to attend for some reason, the stipend money will be returned to the endowment fund. The selection committee will take financial need into account during the selection process. The application deadline is December 1st.

To apply, go to <http://Fillbrandt-Teacher-Stipend.questionpro.com>

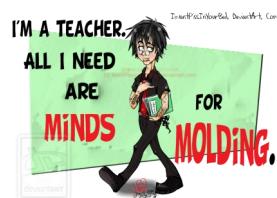
“...providing the \$400 stipends to second through fifth year math and science teachers to attend the SDCTM/SDSTA Conference.”

Support South Dakota Teachers

We have some of the best teachers in the country teaching in South Dakota! We all work hard to provide our students with a quality education and some of the nation's best ideas for lessons and classroom activities are developed in YOUR classroom by none other than YOU! Please consider sharing something with the members of SDCTM. It can be a full fledged lesson for a complete unit, a classroom starter, a worksheet, a new take on assessment.... Nothing is too small or too big. In this issue, Crystal McMachen shares an activity (pp 4-5) and I have included a proof writing activity (pp 12-14).

I often have teachers tell me that they don't do anything special in their classes. But trust me, you do. You make a difference in the lives of children daily... don't pass up the opportunity to make a difference in the life of another teacher.

Please send submissions to: smcquade2@sfcss.org



“Please consider sharing something with the members of SDCTM.”

“GOEHRING/VGKTZ LEADERSHIP SCHOLARSHIP”

“The Goehring/Weitz Leadership Scholarship” has been established to encourage new teachers of math and science to become professionally involved on the state level. The scholarship, which is good for a free one or two day registration at the Joint Conference of the South Dakota Council of Teachers of Mathematics and the South Dakota Science Teachers Association, is available to any teacher who meets each of the following criteria:

- Is a K-12 teacher of math or science who is in the first year of teaching in SD
- Is a member of SDCTM and/or SDSTA. Applicants must pay their own dues to the chosen organization.

The application process is simple. Fill out the form below, have it signed by the building principal, and mail it to Steve Caron along with the regular conference registration form which is available at www.sdctm.org.

APPLICATION “GOEHRING/VGKTZ LEADERSHIP SCHOLARSHIP”

Name:

School District:

Teaching Assignment:

Membership Information:

I am already a member of SDCTM SDSTA (Circle one or both)

I am joining SDCTM and/or SDSTA (Circle one or both)

I am enclosing a check for

\$5.00 for Elementary Math and/or \$5.00 for Elementary Science

\$20.00 for MS/HS Math and/or \$20.00 for MS/HS Science

(Name) _____ is in his/her first year of teaching in SD at _____ School District during the _____ school year and is thus eligible for ‘The Goehring/Weitz Leadership Scholarship.’

Signed: _____, Building Principal

2016 SDCTM/SDSTA JOINT CONFERENCE

ADVANCE REGISTRATION

Crossroads Events Center, Huron South Dakota
February 4-6, 2016 1-800-876-5858

Conference information and program
booklets will be available online at
www.sdctm.org and www.sdsta.org

Please print clearly. Postmark by January 20, 2016. After this date, please register on-site.

Name _____

Permanent Address _____

City _____ State _____ Zip _____

School/District _____ E-mail _____

Home phone _____ School Phone _____

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

- Elementary \$5
- Middle School \$20
- High School \$20
- Post-Secondary \$20
- Student \$5
- Retired \$5
- Other \$20

Begin/renew SDSTA (science) for one year

- Elementary \$5
- Middle School \$20
- High School \$20
- Post-Secondary \$20
- Student \$5
- Retired \$5
- Other \$20

Note: First year teachers are eligible for a scholarship providing a free registration. See www.sdctm.org for details.

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 \$25 each.

I will attend the conference on (check one): Friday Saturday Both days

SDCTM or SDSTA Member

- One day \$50
- Two days \$75

Non-Member

- One day \$100
- Two days \$125

Student Member

- One day \$15
- Two days \$25

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

3. PAYMENT: By Check Only

Make checks payable to SDCTM.

SDCTM does NOT accept credit cards or purchase orders.

Membership(s) total \$ _____

Registration \$ _____

Friday Night Banquet (\$25 each) \$ _____

TOTAL ENCLOSED \$ _____

Requests for refunds must be received by January 20, 2016

4. SEND THIS FORM WITH PAYMENT

Steve Caron

907 South 16th Street School phone (605) 725-8208
Aberdeen, SD 57401 Home phone (605) 226-2292

Email: registration@SDSTA.org

Advance registration must be postmarked by **January 20, 2016**.
After this date, please register on-site.

Please check here if you have also submitted a
speaker proposal form for the 2016 Conference.



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

**Jay Berglund
204 S. Exene Street
Gettysburg, SD**

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
- Other \$20.00

We now offer the option to use PayPal to pay your dues for a minimal processing fee of \$1.00. The processing fee will cover the processing fees incurred by SDCTM and fees charged for having checks cut by PayPal.

*Instructions can be found online at:
<http://www.sdctm.org/joinsdctm.htm>*



SDCTM Newsletter
C/o Sheila McQuade
OGHS
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www.sdctm.org