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(T a l k i n g   L e a f)

South Dakota Council Teachers of Mathematics Newsletter

Presidential Ponderings

"Wow, I did not know that!"

"Best ever! I'll be back next year!"

I'm talking, of course, about the 2016 SDCTM/SDSTA annual conference. The planning team assembled a tremendous slate of speakers, covering all grade levels. Presenters brought fantastic ideas and information. Attendees learned, laughed and shared. A great opening event: the math sharing session always makes my top-ten list of favorites. It's wonderful to sit down with people who "get it." I love the suggestions that are put forward and the activities that are discussed. The sharing session is a gift freely given from one classroom to another.

The "Share the Classroom Treasures" exchange experienced great success, as always. I saw many interesting articles come and go. It pleases me to imagine a new life for materials that might otherwise have been discarded. Keep your eyes open for items that you would like to "recycle" next year. I have already started a box to set aside treasures for next time.

Awards were presented to many deserving individuals, and outstanding teachers were recognized for their accomplishments. Jean Gomer was recognized as the recipient of the "Distinguished Service to Mathematics Award" and Mark Kreie received the Daktronics "Outstanding Math Teacher Award." (See inside for more information.) But my favorite part of the conference is always the camaraderie and sharing, both formal and informal, that happens every time math and science teachers get together. You can relive some of the conference highlights via the sdctm.org website. Maybe you are even in some of the pictures!

Over and over, conference attendees mentioned the excellence of the presentations. Our featured speakers, Tom Reardon and Don Balka, provided outstanding sessions for participants. Once again, South Dakota's finest (that's you) presented interesting sessions. Having attended several national conferences, I can truthfully say that they have nothing on us. There are no finer educators anywhere, and the quality of our sessions says it all. Truly, the conference could not succeed without the enthusiastic participation of our members.

You know that awkward moment when two students generate the same "random" number on their calculators? What are the odds? Thanks to Tom Reardon's excellent TI-84 session, I now know what to do about it. Turns out that each calculator has the same "seed number" programmed into it. Students can enter a unique number (think cell phone number) into their calculator. This seeds the generator and eliminates this problem. Have students enter their phone number on the home screen and store. *6055552212 sto ... rnd (math>>prob)* Who knew? I was also reminded of some graphing calculator functions that I knew at one time, but had forgotten. For example: to display the graph and corresponding ordered pairs on the same screen, you can access the graph/table mode (from the mode key).

Featured speaker Don Balka emphasized the playful aspects of pre-algebra and algebra. Engaging and educational activities are his specialty. Students are much more likely to buy-in when practicing algebra skills in a game format than when completing a worksheet. I especially enjoyed his "Games and Activities" session. Target Math is one of my personal favorites. I will use many of Don's ideas in my classes this spring.

SPRING 2015-2016

Wahpe Woyaka pi

Inside this issue:

Calendar Notes:

- *PAEMST Applications Due May 1, 2016*
- *DOE Common Core Standards Review June 6, 7, 20, 21, July 12*
- *SDCTM Annual Symposium July 20, 2016*

Presidential Ponderings, *continued*

   As school districts begin the requisition/budget process for next year, please remember to set aside funds and time to attend next year's conference. It's a great professional development experience at a bargain price. Next year's conference will be Feb. 2-4, 2017. Mark your calendars and plan to attend!

   In many ways, the annual conference is like Christmas: months of preparation and planning; excitement and anticipation; family coming in from far and wide; great conversations and time to catch up; even wondering whether everyone will make it in spite of the weather. And the gift: spending time renewing our spirits. It's a grand holiday! And then the inevitable after-Christmas let-down arrives. The party is over for another year. The company goes home and it's time to vacuum up the pine needles from the carpet. I had that feeling when I came back to my class-room on Monday. I could barely see my desk underneath the piles of work waiting for me. When I miss two days, it takes me at least a week to catch up again. Is it that way for you too?

   How do I work my way out of the after-Christmas blues? I just remind myself of the reason that I am behind. I just came back from a great "vacation." It was worth it. I'm looking forward to trying some new activities, and re-tooling some old ones to make them better. I feel re-energized and ready to face my toughest and most skeptical students. I even picked up a few new math jokes.

Yours til pi repeats,
Cindy Kroon
SDCTM President

"...the annual conference is like Christmas: months of preparation and planning; excitement and anticipation: family coming in from far and wide..."

Share the Wealth

I like to include activities and lesson ideas in each newsletter (there are five in this issue). I know that we have some of the world's best math teachers teaching in the state….and some of the most generous. However, I've come to realize that we are also some of the most modest. You never think what you are doing is "good enough" to include in the newsletter. Let me assure you that it is! If it works for your students, I know that at least one other teacher would find it helpful as well. I challenge you each to submit at least one activity...no matter how small or how large. You can include pictures of your students (and you if you'd like). Past sub-missions have sometimes included a student worksheet, others have not. It can be as simple or as complex as you are comfortable with. Sometimes, a simple idea (no handouts, pictures etc) can be like a gold mine to the teacher that is looking for just the right thing.

Send submissions to: smcquade2@sfcss.org

6-8 Highlights

Happy Spring Everyone!

   I love spring. I love that I can ditch the winter coat and I no longer leave school in the dark. A downfall to spring is the student affliction called Spring Fever. On the days that the kids get a little antsy or half the students are gone for track, it would be nice to have a movie day. Unfortunately, math movies are slim pickings. Recently, I did come across a new option on my Facebook feed. It is called Math with Matthew. According to his Facebook page, "Dr. Matthew Beyranevand is a Math Educator with a mission to improve student engagement and conceptual understanding in students learning of mathematics." I have shown his video on the Pythagorean Theorem to my 8th graders. They must have liked it since they ask me everyday to watch more! His videos can be found on Youtube or at http://mathwithmatthew.com/

   In Huron, Melissa Frein and I presented on student discourse. Unfortunately, we ran out of time before we could do a "Chalk Talk" with our participants. I had a request to explain what a "Chalk Talk" is and how to do it in a math classroom.

   A "Chalk Talk" is a silent activity where students have a discussion on paper. It begins with big pieces of butcher paper with a different question on each one. The questions have to be open ended enough for the discussion to occur. I have used this at the beginning of the year to set classroom rules or at the end of a unit to help summarize what we have learned.

   The big pieces of paper are scattered around the room. Then students use a marker (so really a better name would be marker talk, but that doesn't sound as cool) to answer the "big question" on the paper. The students then circulate the room writing on the papers. As the discussion progresses, students can comment on other student's answers, ask questions, or make marks such as smiley faces, hearts, question marks or exclamation points. There are two rules for this activity - everyone writes and no one talks out loud.

   Some hints for this activity would be to have at least four or five questions. If you have fewer than that, then there can be congestion around a paper. Setting a time limit also helps keep the students focused. After the "Chalk Talk" assign students to each "big question." Have them read it over and be ready to summarize what they see on the paper for the class.

   Like I mentioned earlier, I use this activity to help summarize a unit. For example, after studying linear and exponential functions I would use the following questions:

- Where would you see linear functions outside of the math classroom?
- Where would you see exponential functions outside the math classroom?
- How are linear and exponential functions similar?
- How are linear and exponential functions different?
- How would you help someone decide if a function is linear or exponential?

One last benefit of this activity is it gets those antsy, spring fever afflicted kids up and moving!

Crystal L. Mcmachen
SDCTM Middle School Liasion

"One ... benefit of this activity is it gets those antsy, spring fever afflicted kids up and moving!"

9-12 Spotlight

The end of the school year is getting close, Huron started 4th quarter after Easter break. It is hard to believe we only have a 1/4 of the year remaining. I have a lot of standards to cover yet!

Attached is a Assessment (see pages 5 & 6) I use with my Pre-Calc students when graphing Sine and Cosine by hand. As you can see by the pictures I put a fun twist on the Quiz. I take the quiz to my local UPS Store and I have them print it 3 feet wide! I put the kids in big groups. They have to all contribute and work together. If a student chooses not to help the group they have to do the quiz on their own. It is much more than a matching quiz as the directions state. They have to identity the amplitude, period, midline, and phase shift. Of course they have to match the question with the graph, but they also have to highlight the fundamental period on the graph. My students really enjoy this assessment and I have always found it really engages them. I love listening to all the "math" talk while they are working together.

Lindsey Brewer
SDCTM Secondary Liaison

"I love listening to all the "math" talk while they are working together."

4.5 Quiz Graphing Sine

Directions: Match the equation with the graph.

Describe the midline, amplitude, period & phase shift of each equation.

Highlight the fundamental period

_____1. $y = 2 - 3\sin\left(2x - \dfrac{\pi}{2}\right)$

_____2. $\left|y = 1 + 2\sin(x - \pi)\right.$

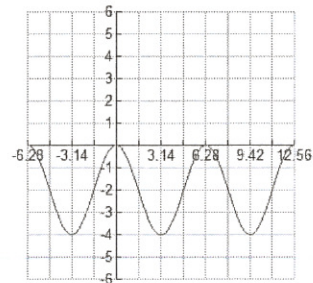_____3. $y = -2 - 2\sin\left(x - \dfrac{\pi}{2}\right)$
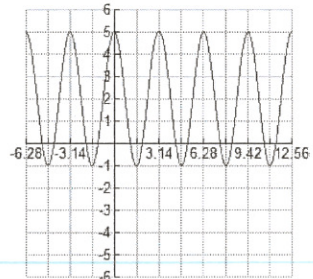
_____4. $y = -2 - 3\sin\left(\dfrac{x}{2} + \pi\right)$

_____5. $y = -1 + 3\sin(2x - \pi)$
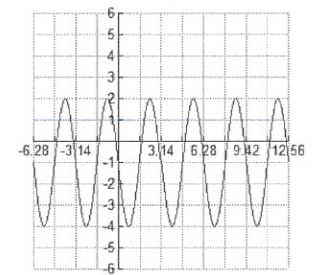
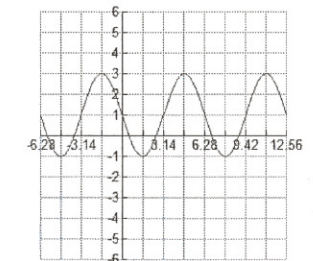_____6. $y = 2 + 3\sin\left(\dfrac{x}{2} + \dfrac{\pi}{2}\right)$

A.

B.

C.

D.

E.
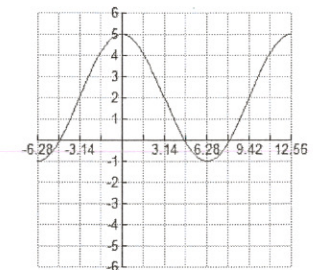
F.

4.5 Quiz Graphing Sine
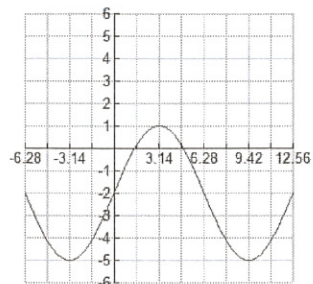
Directions: Match the equation with the graph.

$y = d$ $|a|$ $\frac{2\pi}{b}$ $\frac{c}{b}$

Describe the midline, amplitude, period & phase shift of each equation.

Highlight the fundamental period

A.

B 1. $y = 2 - 3\sin\left(2x - \frac{\pi}{2}\right)$ $y = 2$

amplitude $|-3| = 3$ Reflect x-axis

period $\frac{2\pi}{2} = \pi$ phase shift $\frac{\frac{\pi}{2}}{2} = \frac{\pi}{4}$

$y = -2$

B.

D 2. $y = 1 + 2\sin(x - \pi)$ $y = 1$

$|2| = 2$ $\frac{\pi}{1} = \pi$

$\frac{2\pi}{1} = 2\pi$

$y = 2$

C.

A 3. $y = -2 - 2\sin\left(x - \frac{\pi}{2}\right)$ $y = -2$

$|-2| = 2$ Reflect x-axis

$\frac{2\pi}{1} = 2\pi$ $\frac{\frac{\pi}{2}}{1} = \frac{\pi}{2}$

$y = -1$

D.

F 4. $y = -2 - 3\sin\left(\frac{x}{2} + \pi\right)$ $y = -2$

$|-3| = 3$ Reflect x-axis

$\frac{2\pi}{\frac{1}{2}} = 4\pi$ $\frac{-\pi}{\frac{1}{2}} = -2\pi$

$y = 1$

E.

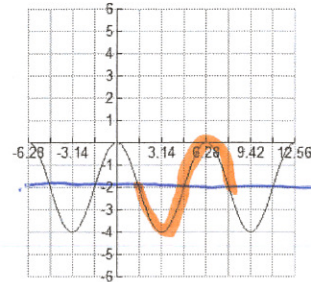**C** 5. $y = -1 + 3\sin(2x - \pi)$ $y = -1$

$|3| = 3$ $\frac{\pi}{2}$

$\frac{2\pi}{2} = \pi$

$y = 2$
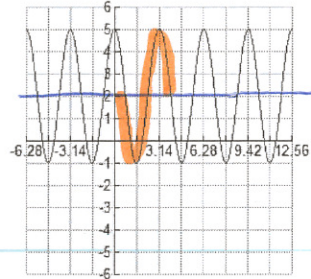
F.

E 6. $y = 2 + 3\sin\left(\frac{x}{2} + \frac{\pi}{2}\right)$ $y = 2$

$|3| = 3$ $\frac{\frac{\pi}{2}}{\frac{1}{2}} = -\pi$
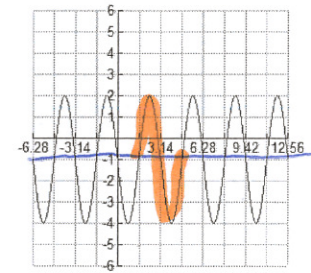
$\frac{2\pi}{\frac{1}{2}} = 4\pi$ $\frac{\frac{\pi}{2}}{\frac{1}{2}}$
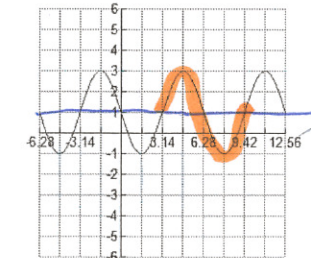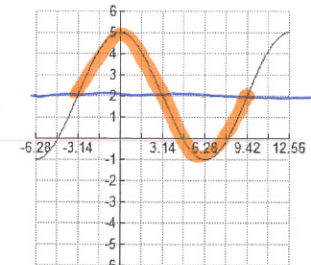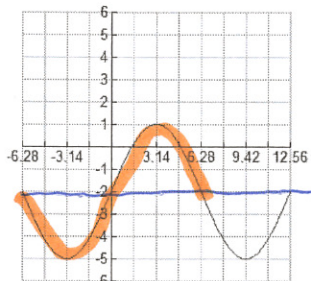
$y = -2$

Higher Ed Viewpoint

   It was good seeing many of you in Huron last month. Since there is not much new to report other than the math placement changing that I discussed in my last letter, I'll pose what I perceived to be a good trig/pre-calc problem that came from a geometry course I'm teaching this semester. Hopefully you will find it generates a lot of interesting discussion in your classrooms as well.

   Let A, B, and C be three non-collinear points that form a triangle with the usual notations of vertices and lengths of opposite sides. Since we know SAS determines a triangle, we'll fix b, θ, and a. For each point D on BC, it will fix a length x and an angle ψ(x) as shown in the picture below. The object is to get students to think about the function ψ(x) as many will guess it to be linear. Start out with giving them the two points that must lie on the curve, namely (0,0), and (a, m(<A)). Start by asking them if ψ(a/2) = m (<A)/2 and if not, what conditions need to be true in order for this point to be on the curve. To graph ψ(x) I first solved for AD using the law of cosines in the triangle ΔACD and then got an expression for ψ(x) using the law of sines. You may have a better solution and decide to start with different notation on the triangle but this at least gives them a good hint at where to start. You will find that with different values of θ and b, you can make the curve concave up, concave down, or a combination of the two. Have fun.

$$\varphi(x) = \sin^{-1}\left(\frac{x \sin \theta}{\sqrt{x^2 + b^2 - 2bx \cos \theta}}\right)$$
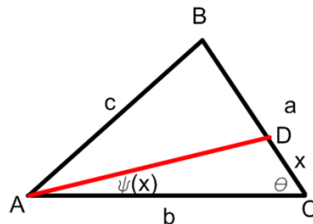
Best wishes,

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

Share the Classroom Treasures

"Sharing" the treasures has been quite popular at the SDCTM/SDSTA Conference. As you wrap up the year and do a little spring cleaning, don't forget to start a box of classroom treasures for the next conference.

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

"The object is to get students to think about the function ψ(x) as many will guess it to be linear."

SDCTM Public Relations Representative

As discussed at the SDCTM business meeting there is a need for a social media expert to promote SDCTM. I would like to introduce Leah Branaugh. Leah is the new SDCTM Public Relations Representative. Leah is a USD graduate with a Business Administration Degree and a Elementary Education Degree. She is also certified to teach Middle School Math. In her 4 years at Huron, Leah has had 3 different positions. During her first year she was the Math Intervention teacher, followed by 2 years as the 6-8 ESL math teacher, and now she is a 7th grade math teacher. Leah also is the soccer and tennis coach. In her first week as PR Rep she set up a Facebook page, a Twitter account and a Instagram account for SDCTM. Please join the South Dakota Council of Teacher of Mathematics on Facebook – it is a closed group. Make sure to follow on Twitter with @SouthDakotaCTM and Instagram with SouthDakotaCTM. Also, make sure to use the hashtag#SDCTM whenever you are Tweeting or posting to Instagram.

Lindsey Brewer
SDCTM Secondary Liaison

Welcome, Leah Branaugh, SDCTM Public Relations Rep.

Reflections on a "Flipped" Classroom

Several years ago I was involved with a grant (Teaching Smarter in the 21st Century) that focused on using 21st century tools (technology) in education. It was an amazing professional development opportunity! Even if I didn't fully embrace all that the participants were taught and exposed to (… because, hello, change is difficult), I grew and benefitted from the opportunity to collaborate with some of the best math/science teachers around. One of the delivery methods that was discussed was a "flipped" classroom. A classroom in which the teacher records videos (vodcasts) for students to watch at home, during study hall, on the bus etc. Students then work on their homework during class. I will admit that there were many aspects of the flipped classroom that intrigued me, but I was resistant...mostly because I do not like my recorded voice! One of my colleagues uses a flipped classroom model for one of his classes. My daughter was a student in his class during her senior year and I saw many benefits to the model from a student's and a parent's perspective.

Old dogs (teachers) can learn new tricks. I started a flipped model with my Geometry freshmen and sophomores after Easter break. Three days in and I LOVE it. (I'm ignoring the sound of my recorded voice. 🙂). The kids are getting in the habit of watching the videos and I like being able to work with them for the entire assignment. I use "bell ringers" based on their notes as a way to hold them accountable for the notes and "exit tickets" to check their homework progress (which motivates them to use the 50 minutes wisely). If you have any questions, feel free to send me an e-mail.

Sheila McQuade
smcquade2@sfcss.org
O†Gorman High School

"Old dogs (teachers) can learn new tricks."

Austin Hogie Receives 2016 Diana McCann Memorial Scholarship

Diana McCann spent her professional life mentoring and encouraging young teachers to strive for classroom excellence. Diana was tireless in her service on committees and work groups advocating excellence at the state and national levels. Her boundless enthusiasm and infectious sense of humor made every project more enjoyable and productive. To honor her memory and to continue Diana's life work, the McCann family has established a scholarship for aspiring math educators. The **Diana McCann Memorial Scholarship** will be awarded annually to a college senior planning to teach mathematics. Selection for the $1000 scholarship is determined by the applicant's demonstration of scholarship/character, leadership, service, personal essay, and letter of recommendation.

2016 McCann Scholarship recipient Austin Hogie with his parents Jacque and Al Hogie.

Greg McCann presents the first McCann Scholarship to Austin Hogie.

Austin Hogie, is the first recipient of the McCann scholarship. Austin is a senior at the University of Sioux Falls. He is president of USF's Math Club, and tutors at the Math Help Center. Austin is captain of both the USF Cross-Country and Track teams, and is active in church activities as well. According to his academic advisor,

> "Austin will be an outstanding math teacher and role model for his students. He is bright and inquisitive, and he is conscientious and a hard worker – a combination of traits I wish ALL of my students had! (His current GPA at the University of Sioux Falls is an impressive 3.903.) He is also very kind and personable, relating well with his peers and instructors. He is very active on the USF cross country team and with other campus groups, and yet he effectively balances this with his academics. Not only is Austin gifted intellectually, but he has a wonderful attitude and personality; he is truly a pleasure to be around."

Austin will be student-teaching in the fall of 2016, and graduating from USF in December 2016.

Donations to the McCann Scholarship can be sent to Security State Bank 1600 Main Street, Tyndal SD 57066. One hundred percent of all donations will be used to fund the scholarship.

Distinguished Service Award

The 2016 Distinguished Service Award recipient could be called an overachiever. With a BS in Mathematics (1971), and a Master's degree in Education (1988), she has also completed an additional Master's degree in Administration (1995). This year's awardee received the 1997 Presidential Award for Excellence in Mathematics and Science Education (PAEMST), and served on many boards and workgroups in South Dakota and beyond. She served as president and vice-president of SDCTM, and has been a member of the executive board for many years. Her service as Conference Coordinator has been invaluable for many years.

She has dedicated her life to teaching and has served only the students from her school, but also other teachers. She truly demonstrates the qualities of caring and dedication that all teachers must have, as well as the willingness to work with and share with colleagues. The 2016 recipient of the Distinguished Service Award is our mentor and friend: Jean Gomer.

SDCTM President, Cindy Kroon presents Jean Gomer with the Distinguished Service Award

Friend of Mathematics

In recognition for all they have done for SDCTM/SDSTA and our joint conference, the Friend of Mathematics Award was presented to the Huron Events Center/ Crossroads Hotel. Accepting on behalf of HEC are Todd Peterson and Brenda Jager.

Daktronics Math Teacher of the Year

The Daktronics Math Teacher of the Year was presented to Mark Kreie from Brookings High School.

To Huron, or Not to Huron. . .That Is the Question!

Every year, someone asks the question, "Why is the conference always in Huron?" That someone is obviously not on the Joint Conference Board as they all know what I am going to respond. There are several reasons including it is easier, it is cheaper, and Huron is so accommodating.

First of all, for the past 20 plus years, the Huron Chamber of Commerce, the Crossroads Hotel, and now the Huron Events Center have gone out of their way to accommodate the needs of an ever changing conference. SDCTM had its conference in Huron for a few years before the consolidation with SDSTA for the purpose of putting on a better conference. In those first years, when our attendance went from 200 to over 700 in one year, the HCC/Crossroads found us 14 extra meeting rooms within walking distance of the Crossroads at no extra cost to the Conference Committee. This included a long standing agreement with the Presbyterian Church that ended only when the new Events Center was completed. They also helped us scale back when the NSF money disappeared and we struggled to make ends meet and still keep a quality conference. Our liaisons with the Crossroads, especially Brenda and Millie, have helped us do what it takes to meet the needs of our organizations.

Another reason we stay in Huron is that it is just plain easier. SDSTA and SDCTM are organizations that are run by volunteers. We all know that doing something the second time is easier than figuring out how to do it the first time. Imagine trying to allocate space for sessions in a strange facility, or coordinating meals with someone you don't know, or straightening out the room situation when you discover that a featured speaker doesn't have a room with the third desk clerk you have talked to in two days. These are all things that the Joint Conference Committee does not have to deal with. One phone call or email usually takes care of any "crisis."

Finally, the bottom line usually ends up being money, and this is not an exception. About every three years, Sioux Falls, Aberdeen, Pierre and Rapid City contacts us trying to lure us away from Huron. What I do is send them a list of the things that Huron provides and ask them what incentive they can offer to make us consider changing our venue. Sometimes they don't even respond. Most of the time, they send me a polite note, suggesting that I am exaggerating what we get from the Crossroads/Huron Events Center. Trust me I am not. We pay nothing for meeting rooms, get reasonable rates on our meals, provide all available sleeping rooms at the Crossroads to our participants at the same rate, and we get complimentary suites to use as office space. Until the last couple of years when we had so many requests for LCD projectors, they also provided all AV equipment free. Even now, thanks to TIE and the HEC we still do not pay for AV equipment. Many national conferences now pass that cost on to presenters at anywhere from $25-50/hour for the use of an LCD projector. These things add up to big dollars in the overall budget. Since we need this conference to be self-supporting, money has to be a factor in our decision making process. That is why we stay in Huron.

I realize that this is more information than some of you really need or want, but I think that it is important to address a question that doesn't seem to go away. I think you also need to go out of your way to thank any SDCTM or SDSTA Board member that you see for the time and energy that they put into making this Joint Conference such a great event. We, in South Dakota, are unique in having an annual Joint Conference, especially one that is coordinated by volunteers. What is even more important is the quality of that conference. See you there in February of 2017.

Jean Gomer, Conference Coordinator
A revision of the 2009 version

"Since we need this conference to be self-supporting, money has to be a factor in our decision making process. "

Trig Exploration (43)

Spaghetti Sine Curves

Materials: meter stick, compass, protractor, string (approx. 2 m), butcher paper (approx. 1m x 3m), uncooked spaghetti, marker

Time: 1-2 50-min. class periods

1. At the left end of the paper, construct a circle with radius = 1 spaghetti piece. *(unit circle)* Draw a set of axes with the origin as the center of the circle. Use a protractor to measure a central angle of 15 degrees. Mark this angle on the circumference of the circle. Repeat at 15-degree intervals. Label each interval. (See figure 1)
2. Adjacent to the circle, draw another set of axes with the x-axis approximately 7 spaghetti lengths.
3. Place the string along the circumference of the circle with one end at 0 degrees. Use the marker to transfer the 15-degree intervals from the circumference of the circle to the string.
4. Stretch the string along the other set of axes. Place the end of the string (that was at 0 degrees on the circle) at the origin on the second set of axes. Transfer the marks from the string to the x-axis. Label each 15-degree interval. (See figure 2)
5. Use spaghetti to form a right triangle on the circle at 15 degrees. The radius of the circle is the hypotenuse of the triangle. The vertical distance to the x-axis is one leg of the right triangle. The horizontal distance along the x-axis is the other leg of the triangle.
6. Break a piece of spaghetti into appropriate lengths for the legs of the triangle. Move the vertical leg (spaghetti) to the second set of axes and place it vertically at the 15-degree mark. Tape the spaghetti in place, and make a dot on the paper at the top of the piece of spaghetti.
7. *Repeat steps 5 and 6 for each of the marked 15-degree intervals around the circle. (What happens when the vertical leg is below the x-axis?)*
8. Draw a smooth curve to connect the dots. *(What about 0 degrees? Was a triangle formed? Length of opposite side?)* Label your curve y = sin x
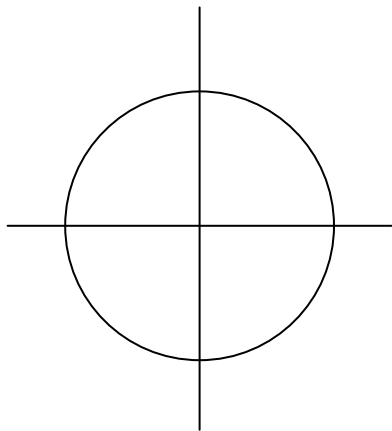
Figure 1   Figure 2

Cindy Kroon 2-1-02

Trig Exploration (43)

Spaghetti Cosine Curves

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2. Adjacent to the circle, draw another set of axes with the x-axis approximately 7 spaghetti lengths.
3. Place the string along the circumference of the circle with one end at 0 degrees. Use the marker to transfer the 15-degree intervals from the circumference of the circle to the string.
4. Stretch the string along the other set of axes. Place the end of the string (that was at 0 degrees on the circle) at the origin on the second set of axes. Transfer the marks from the string to the x-axis. Label each 15-degree interval. (See figure 2)
5. Use spaghetti to form a right triangle on the circle at 15 degrees. The radius of the circle is the hypotenuse of the triangle. The vertical distance to the x-axis is one leg of the right triangle. The horizontal distance along the x-axis is the other leg of the triangle.
6. Break a piece of spaghetti into appropriate lengths for the legs of the triangle. Move the horizontal leg (spaghetti) to the second set of axes and place it vertically at the 15-degree mark. Tape the spaghetti in place, and make a dot on the paper at the top of the piece of spaghetti.
7. Repeat steps 5 and 6 for each of the marked 15-degree intervals around the circle. *(What happens when the horizontal leg is to the left of the y-axis?)*
8. Draw a smooth curve to connect the dots. *(What about 0 degrees? Was a triangle formed? Length of horizontal side?)* Label your curve y = cos x
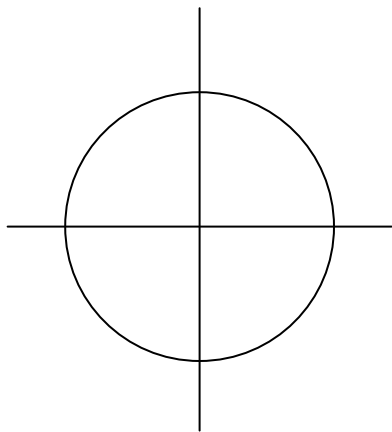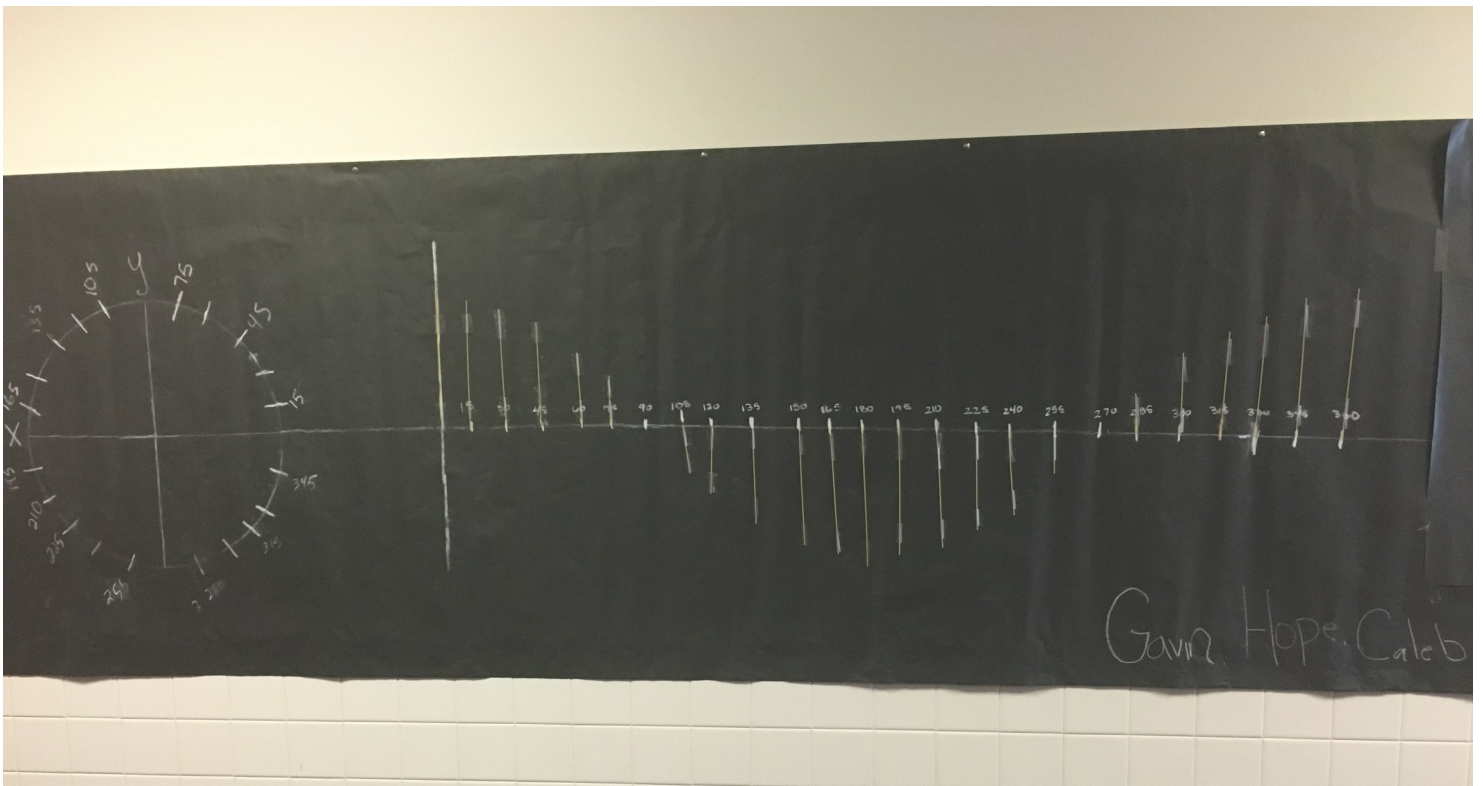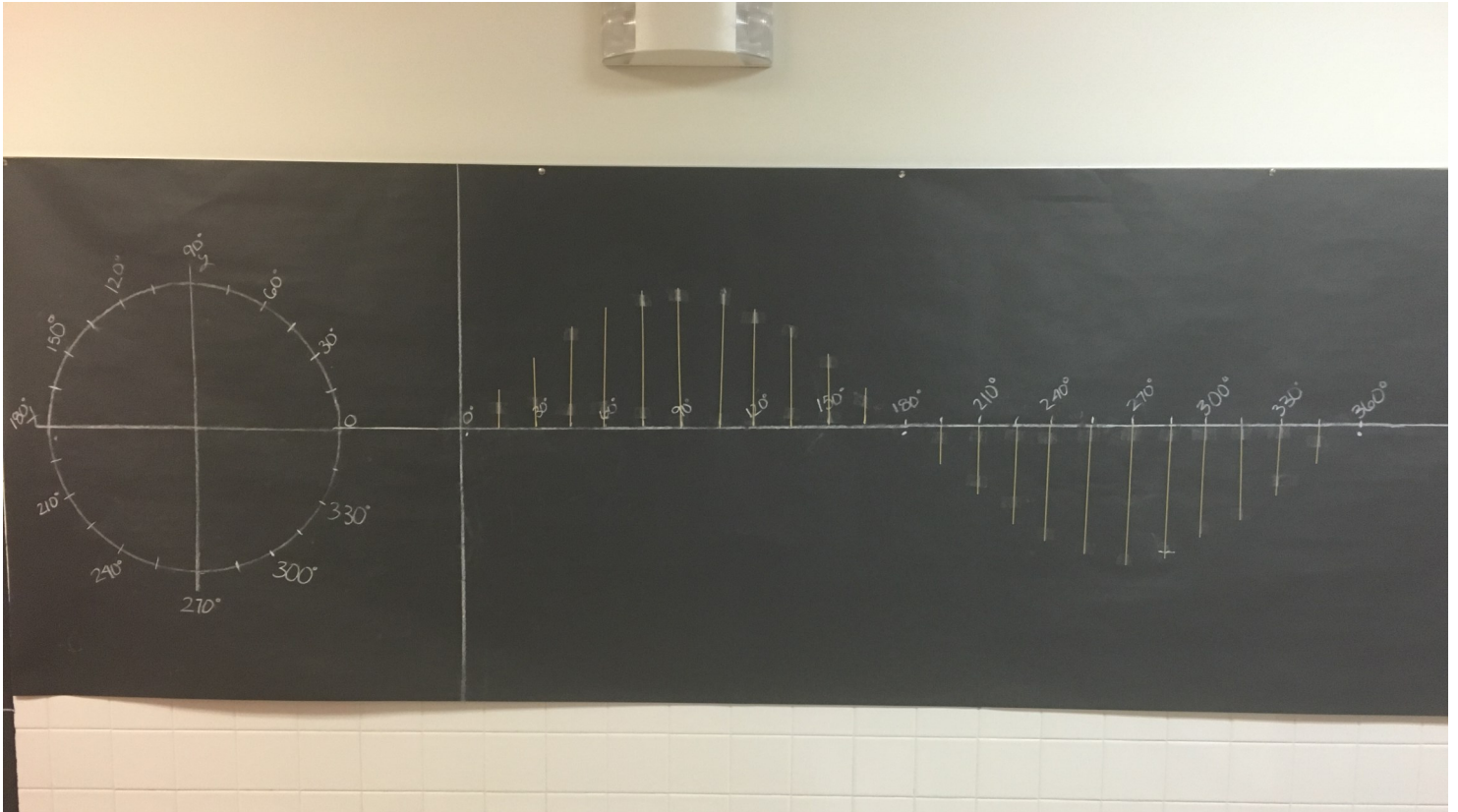

Figure 1   Figure 2

Cindy Kroon 2-1-02

Sine & Cosine Graph Exploration, *continued*

South Dakota Council of Teachers of Mathematics

SDCTM 2016 Summer Symposium

July 20, 2016

Top Ten Transformations!
Instructors: Lindsey Brewer & Lori Keleher

Wednesday, July 20, 2016

SDCTM Member Cost: $50.00 Nonmembers $100
Registration: 8:00 am
Session 8:30-4:00

Registration deadline for the symposium is May 30th.
You can elect to register for DWU grad credit (+$70) when arriving on campus July 20th.

Activities will be applicable for K-12 students.

SDCTM is an Affiliate of the National Council of Teachers of Mathematics.

Bring your laptop or tablet computer .

Adapted from their workshop **"Transforming Ordinary Into Extraordinary",** Lindsey and Lori will share their nine most popular teacher-tested, kid-approved activities for the mathematics classroom. Participants in this symposium will experience each activity through the eyes of a student and will be given time to create their own version for their own math classes. Lindsey & Lori will also share the #1 most powerful thing that has transformed their own teaching and their students' learning. Topics will be applicable to **all grade levels K-12.** Bring your laptop or tablet computer. Join us at SDCTM's Summer Symposium to start your own transformation!

- Location: DWU Campus Mitchell, SD
- Registration: $50 for SDCTM members or $100 for nonmembers.
- DWU graduate credit will be available for an additional $70 tuition.
- Questions about credit? Email Dr. Rocky Von Eye: rovoneye@dwu.edu.
- Questions about registration? Contact Steve Caron: steve.caron@k12.sd.us.
- Questions about content? Email Lindsey Brewer lindsey.brewer@k12.sd.us or Lori Keheler lori.keleher@k12.sd.us
-

Don't delay*!* Registration is limited to a maximum of 25 participants (first come basis) for the session. Minimum 15 participants required.

Check www.sdctm.org for symposium information and updates.
Registration deadline: May 30, 2016

To register for the symposium:
- Complete registration form
- Send with check payable to SDCTM
- $50 (member) or $100 (nonmember)
Send to: *Steve Caron 907 South 16th ST Aberdeen, SD 57401.*

DWU Graduate credit will also be available.
- Do not send payment for DWU credit with your registration. You will register and pay for credit (additional $70) when you arrive on campus.

Name _____

E-mail address_____

Home/Summer Address _____

Home phone _____

School_____

School phone _____

ACADEMY OF BEST PRACTICES

apply now for the SUMMER 2016 **NEW MATH TEACHER INSTITUTE**

The Academy of Best Practices:
New Math Teacher Institute is an annual 5-day retreat sponsored by CPM Educational Program. The program is designed to help new teachers develop into future leaders, to aid their professional growth both in the classroom and in the field of education, to increase their resources, and to form a countrywide network of teacher support.

Who Should Apply
Math teachers new to the profession, 5 years or less, who are seeking supportive opportunities to foster their own pedagogical learning and leadership development.

Why Should You Attend?
This is a unique opportunity to continue your professional growth as you collaborate with colleagues and learn to empower your students.

Topics and Goals for the Week
- develop strategies for a student-centered classroom
- gain ideas to support students in productive struggle
- engage in discussions on critical issues
- create tools for meaningful formative assessment
- participate in professional learning and leadership development

I am infinitely more confident of what I am going to do and why I am going to do it. I have research and data to back up what my instincts have been saying about student-centered learning, and I feel competent to share it with colleagues and parents.
- attendee from the 2015 New Math Teacher Institute

CPM is passionate about supporting educators. We are excited to offer this program to new teachers countrywide. CPM covers the cost of lodging, food, and travel. Don't wait. Apply today!

WHAT: **NEW MATH TEACHER INSTITUTE**
WHEN: **AUGUST 1 - 5, 2016**
WHERE: **SEATTLE PACIFIC UNIVERSITY**
MORE INFO: **CPM.ORG/ABP**

CPM
MORE MATH FOR MORE PEOPLE
CPM EDUCATIONAL PROGRAM
an educational 501(c)(3) nonprofit

SDCTM General Business Meeting

Agenda Feb. 5, 2016   Huron, SD

2/5/2016 – 4:30

Old Business:

1. Review/approve minutes
    a. Approved (Van Peursem, Cooch)
2. Treasurer's report (Berglund) –
    a. Membership down to 102 from last year. Down 62 from last year
    b. Any suggestions for membership drive.

        i. online community
        ii. vote on organization decisions
        iii. opportunity to be on board
        iv. discount for Joint Conference
        v. newsletter
        vi. website with resources
        vii. Link to NCTM
        viii. Personal contact

    c. Attached: Approved (Gomer, Cooch)
3. Membership report (Berglund)
4. Symposium (2015) report (Caron)
    a. Financial –
        i. Steve gave report (attached) Still have $1,732.30.
    b. Suggestions for 2016 –
        i. July 20th Lindsey and Lori "Top 10 things which have transformed teaching."
        ii. Look for a venue West River. University Center? - Sharon Rendon
        iii. Date an issue? Possible Google form?
5. Webmaster (Kroon)
    a. Photos will be taken down in several days.
    b. People joining through PayPal and having troubles.
    c. Box on form for McCann Scholarship
6. Newsletter (McQuade)
    a. Newsletters bounce back
    b. Remail?
    c. Articles from liaisons are good but need more activities.
7. Conference (2015)
    a. financial (Caron)
    b. general (Gomer)
8. NCTM (Trask)
    a. Action Plan
    b. Social Media
    c. Two year/Two People – Don't want in the bylaws
        i. Interested people should contact President

9. PAEMST (Hogie)
    a. People feel that the wait is too long
    b. 16 nominees – 6 Working on it – 1 on step 7
    c. Elementary on even years
    d. Nomination window open until April 1
    e. Limited funds for mentorship

New Business:

1. Social media (Brewer)
    a. Social Media presence
    b. Closed Facebook page
    c. Reason to belong to SDTCM
    d. Lindsey will look for someone who is interested in running this.
    e. SDTCM Public Relations Representative
2. Upcoming standards revision work group (Kroon)
    a. June 6-7, June 20-21, July 12, June 6th 2017
    b. Applications Due March 4th – Send Application to Shelia to disseminate
    c. Strongly urge to apply
3. McCann scholarship (Kroon)
    a. Donation Jar out at conference
    b. Box on membership form
    c. $1000 to college senior in Math Education going to school in SD public or private
    d. Donation account set up at bank with 100% going to fund scholarship
    e. Motion by Lindsey to give a free membership for a year and conference registration to the winner to be redeemed at their convenience within the next five years. (Brewer, Hogie)
4. Officers/nominations (Hogie)
    a. New faces needed
5. Bylaws/constitution review (Hogie)
    a. Everyone should go online to see the bylaws and constitution

Motion to adjourn – (Berglund, Rendon)

5:43

South Dakota Council of Teachers of Mathematics
Treasurer's Report
February 5, 2016

Checking:

Balance 2-8-14 $1979.93

Income:

Joint Conference Dues	1470.00	
Dues	723.00	
NCTM Partnership	33.00	
Joint Conference Excess Funds	2527.93	
Interest	0.62	
Total Income		$4754.55

Expenses:

NCTM Conference Expenses	1898.73	
Leadership Conference	1385.12	
Nametags	95.40	
Science Fair Award	30.00	
Plaques	60.37	
NCTM Affiliate Dues	135.00	
Mileage	396.84	
Total Expenses		$4001.46

Balance 2-6-15 $2733.02

Savings:

Balance 2-8-14	$33910.86
Interest Income	33.92
Balance 2-6-15	$33944.78

Membership 2-3-16

Elementary	19
Middle School	18
High School	46
Post Secondary	13
Student	4
Retired	3
Total	103

Symposium Checkbook				
	Starting Balance	$ 1,860.36		
	Deposits	$ 920.00		
	Subtotal		$ 2,780.36	
	Expenses	$(1,048.06)		
	Oustanding Checks	$ -		
	Subtotal		0 $(1,048.06)	
	Ending Balance		$ 1,732.30	
2015 symposium Expenses				
	flyer	$ (168.42)		
	office supplies	$ (51.92)		
	presenters	$ (774.00)		
	SDCTM dues	$ (20.00)		
	snacks	$ (33.72)		
	Subtotal		$(1,048.06)	
	Deposits		$ 920.00	
	Net			-$128.06

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

Jay Berglund
204 S. Exene Strert
Gettysburg, SD 57442

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

2015-2017
SDCTM Executive Board Members

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SDCTM Past President
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President-Elect
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Vice-President
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