

January 2010



NEWSLETTER

Kentucky Council of Teachers of Mathematics

Message from the President

"I need your help."

The excitement of the holidays is over and school days have returned. As you settle into your school routine after the holidays, I invite you to check out the latest KCTM newsletter. As current KCTM president, I write a KCTM newsletter article titled "Message from the President." I would like to focus this issue's "Message from the President" on what KCTM can do for Kentucky teachers. I believe that KCTM offers Kentucky teachers several beneficial opportunities. First, KCTM hosts an outstanding conference each fall. I love to see so many Kentucky teachers gathered in one place to talk about how they best reach their mathematics students. The networking that takes place at our annual conference is valuable to all those involved. Second, KCTM is a statewide professional organization that is an affiliate of the National Council of Teachers of Mathematics. By being an affiliate of NCTM, KCTM is able to keep its members up to date on NCTM initiatives and benefits. Third, KCTM offers classroom teacher support grants for up to \$500 to enable teachers to buy classroom supplies that will benefit them in the teaching of mathematics. While these are three benefits that KCTM offers its members, I believe that KCTM can do much more. This is where you come in. I need your help. Please let me know what KCTM can do to help you as a Kentucky mathematics teacher. What things would you like KCTM to do, offer, implement that would help you in your classroom or as a professional? My email is noblittb@nku.edu. I would love for my inbox to be flooded with emails from KCTM members giving me ideas about how to make KCTM work better for you. I look forward to hearing from you.

Bethany Noblitt
KCTM President

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KCTM Update

The 2009 annual KCTM Conference in Bourbon County is now over and hopefully you were able to take back lots of good information and ideas to use in your classrooms. Thank you also to all the speakers at the conference. We had 90 main speakers, nearly 140 total speakers, and a total of 130 sessions!!! Again, I would like to thank Bourbon County. They were all wonderful to work with in pulling off the conference.

Now on to next year. In 2010 the annual KCTM conference will take on a very different look. We will be in Somerset, KY at The Center for Rural Development. Mark your calendars for October 1 and 2. Yes, a two day conference, and regular registration for members will be the same price as this year's one day conference! So, you will get 2 days for the price of 1!!! Registration should be up and running sometime in March. You will receive an email when registration goes live. For questions about next year's conference, email Kari Ostby at kari.ostby@jefferson.kyschools.us. Hope to see you there.

Kari Ostby

KCTM President-Elect/NCTM Representative

NCTM Update

NCTM's Focus of the Year

The Professional Development Focus of the Year is "Connections: Linking Concepts and Context". NCTM carries out these themes in conferences, journals, material at nctm.org, E-workshops, and Learn ↔ Reflect Strands. Focus of the Year resources for elementary, middle, and high school teachers are available online for both current and past topics. These include "Reflection Guides", which are guidelines for using selected articles and other publications as professional development experiences. Reflection Guides are particularly useful for professional learning communities. Check out these resources and many others at www.nctm.org.

E-Learning Programs

NCTM's online E-Workshops concluded a busy year and introduced several new topics. Highlights included "Math Games," "Implementing the Curriculum Focal Points," and "Geometric Thinking," for various grade bands. In August, NCTM rolled out its latest tool for online professional development- E-Seminars. The seminars are one-time, 60-minute presentations about hot topics in mathematics. Best of all, they are just a phone call and Internet connection away!

Focus in High School Mathematics

In October NCTM published *Focus in High School Mathematics: Reasoning and Sense Making*, which suggests practical changes to the high school mathematics curriculum to refocus learning on reasoning and sense making. This landmark publication represents a substantial rethinking of the high school math curriculum and is intended to drive significant reform in the future.

Illuminations Project

Calculation Nation, an online world of math strategy games, was launched on April 22 at the NCTM annual meeting in Washington, DC. Conference attendees saw the first game ever played of Factor Dazzle- and thought it amazing! Since its launch, Calculation Nation has attracted players from Argentina to Kazakhstan.

NCTM Update, contd.

Of all the games, Slam Ball appeared to be the hands-down favorite, with more than 40,000 hits. Be sure to check out Slam Ball and all the other math strategy games at <http://calculationnation.nctm.org>.

NCTM 2010 Annual Meeting and Exposition

Mark your calendar and register today to attend the annual NCTM conference or one of the regional conferences. The annual conference is from April 21-24 in San Diego, CA. The regional conferences of 2010 will be in Denver, Baltimore, and New Orleans.

Kari Ostby

KCTM President-Elect/NCTM Representative

Picturing Long Division, Seth Hunter

If pictures are worth a thousand words, then good graphical representations of mathematical ideas speak volumes.

$$\frac{12x^9 - 12x^6 - 57x^5 + 60x^2 - 15x}{4x^4 - 4x + 1}$$

		?			...
$4x^4$	→	↓	$12x^9$...
$-4x$...
1					...

			$3x^5$...
$4x^4$	→	↓	$12x^9$...
$-4x$	→	↓	$-12x^6$...
1	→	↓	$3x^5$...

Picturing Long Division, contd.

	$3x^5$...
$4x^4$	$12x^9$	$-60x^5$...
$-4x$	$-12x^6$...
1	$3x^5$...

	$3x^5$	$-15x$...
$4x^4$	$12x^9$	$-60x^5$...
$-4x$	$-12x^6$	$60x^2$...
1	$3x^5$	$-15x$...

Simplicity, organization, and previous learning are the beauty of this process for dividing polynomials. When I taught long division in the past, or the very limited process of synthetic division, my students would bemoan, “Why, why why?” It was difficult for me to give a sincere and valuable reason for why we should learn long or synthetic polynomial division because my students and I both knew these algorithms would not be used very often since they were time consuming, error prone, and boggling - especially synthetic division. True, they could learn the latter process well enough, however, the connection between this process of dividing to their previous experiences was weak and thus lacked staying power.

Most algebra teachers have probably used an area model to represent multiplication of polynomials because of its connection to the familiar $bh=A$ of rectangles; I hope all geometry teachers have celebrated the fact with their students that geometry lay at the root of most of our symbolic shortcuts (e.g. the FOIL process). Given the ease in understanding the area model for multiplication, its surprising that I had never considered its use in division of polynomials, after all, if b and h represent the polynomial factors to be multiplied and A their

product, then the statement $\frac{A}{b} = h$ represents a dividend, A , that is divided by the divisor b resulting in the quotient h .

Was it that my own mind was so used to teaching long and synthetic division when dividing polynomials that I had stopped considering other possibilities? Whether it was or was not, and whether I personally valued the area model over previously used techniques, this model certainly helped my visual and slower learners by tapping into their natural abilities and strongly connecting this new technique to many previous learning experiences.

The above example did not have any remainders, so how do we use this process when such situations arise? We must remember two things:

Picturing Long Division, contd.

- A is the “net” balance of area that is equivalent to the dividend, which is why in the example above we needed to add $-60x^5$ to area of the rectangle; the first column produced $3x^5$, but the dividend had a total of $-57x^5$, hence the need for adding the $-60x^5$.
- As we are “balancing” the area A to make it equivalent to the dividend, we may encounter situations where the quotient would need to include a term with a negative exponent (see example below); however, no term of a polynomial may have a negative exponent. If such situations arise, those terms that are added to A are part of the remainder.

Consider the problem $\frac{x^7 + 2x^4 + 3x^2 + x - 1}{x^3 + 1}$ where the numerator represents the area A and the denominator the side of the generic rectangle, called such because we are not sure of the exact side lengths.

		x^4			...
x^3	→	↓	x^7		...
1			x^4		...

		x^4	x		...
x^3		x^7	x^4		...
1		x^4	x		...

At this point the 7th, 4th, and 1st degree terms have all been accounted for, so we must go back and place within the area the “balance” needed for the 2nd degree term.

		x^4	x	↓ ?	...
x^3	→			↓	$3x^2$
		x^7	x^4		...
1		x^4	x		...

To satisfy this situation we must consider $\frac{3x^2}{x^3} = \frac{3}{x} = 3x^{-1}$, however based upon the definition of

polynomials the quotient cannot include a term with a negative exponent and thus there is nothing we can place in the space of the ?. It must be left blank.

Picturing Long Division, contd.

	x^4	x		↓	...
x^3	x^7	x^4	$3x^2$	-1	...
1	x^4	x			...

The same situation arises again, and so $3x^2 - 1$ must be in the remainder and I now switch to an algebraic representation.

$$x^7 + 2x^4 + 3x^2 + x - 1 = x^7 + 2x^4 + x + 3x^2 - 1 = (x^7 + x^4 + x^4 + x) + 3x^2 - 1$$

$$x^7 + 2x^4 + 3x^2 + x - 1 = (x^3 + 1)(x^4 + x) + 3x^2 - 1$$

$$\frac{x^7 + 2x^4 + 3x^2 + x - 1}{(x^3 + 1)} = \frac{(x^3 + 1)(x^4 + x) + 3x^2 - 1}{(x^3 + 1)} = \frac{(x^3 + 1)(x^4 + x)}{(x^3 + 1)} + \frac{3x^2 - 1}{(x^3 + 1)}$$

$$\frac{x^7 + 2x^4 + 3x^2 + x - 1}{(x^3 + 1)} = (x^4 + x) + \frac{3x^2 - 1}{(x^3 + 1)}$$

And thus we have our quotient with its remainder.

Polynomial division is not often employed as a problem-solving or learning tool in the typical classroom unless students have access to computer based polynomial calculators. This method makes efficient a once cumbersome process. As a testament to its ease, of all the homework I have assigned this school year, the only for which all of my students completed 100% of the assignment was the polynomial division set of exercises. I highly recommend using this method and must recognize my friends of the College Preparatory Mathematics (www.cpm.org) for sharing this technique with me.

Seth Hunter

KCTM High School Vice-President

Streamline Your Learning Targets By Using Excel Spreadsheet,

Jamie-Marie Wilder

Teachers, do you ever struggle with providing your students with opportunities to make inferences and analyze real-world data? I have struggled with this problem my whole teaching career. How can I provide opportunities for students to manipulate data, to create inferences and to analyze data in a meaningful way that does not take an excessive number of days to accomplish? I just might have a way in which you too can accomplish this feat by looking at learning targets and technology.

I am involved in a program known as the Appalachian Teacher Partners sponsored by PIMSER. This year we have focused our attention on creating clear and specific learning targets. This group is curious on how the utilization of this practice can impact student achievement and improve pedagogical practices. We have read excerpts from a book entitled, Seven Strategies of Assessment for Learning by Jan Chapuis. This book is a part of a series of books from the Assessment Training Institute. In this book, Chapuis (2009) suggests that teachers should have learning targets that have terminology that is identified and clarified for students; definitions for these terms should be written in student-friendly language; and the learning target itself should be written in the form of “I Can or We Can” statements (p. 23).

I took this knowledge of learning targets and applied them to my classroom during my probability unit. One of the biggest mathematical ideas that I hope to relay to my students is the more experimental data that is collected and its experimental probabilities compiled, the closer the data will display probability similar to the theoretical model. I also want my students to have a grasp of how the Law of Large Numbers plays a role in bridging the idea of experimental and theoretical probabilities. In the past I have used the M & M activity in which student groups count the number of M & Ms for each color and then we compile all our data in order to construct a class graph of the percentage for each color. Then we would compare and contrast our graph versus a graph of the color distribution from the M & M website.

I believed that this activity was a good way to look at the relationship between experimental and theoretical probability. However in the past, by the time we actually got to the analyzing portion of the lesson, the students were tired of our M & M activity. Why was this happening? I was getting to the good part...but my students were not with me. After reading about learning targets, I asked myself what I am asking the students to do in order to get to my overall learning target of “I can explain how the Law of Large Numbers relates experimental probabilities to theoretical probability.”

I made the following list of prerequisite skills that students needed in order to complete the M & M activity. Students needed to do the following: create a table of data for the number of M & Ms for each color; convert the color distribution numbers into fractions, decimals and percents; decide on an appropriate graph to display their data; construct the graph with proper scale; compile their group’s color distribution data with the classes’ data; and then create a class graph for the color distribution. I was in essence asking these students to complete **six tasks** before they even made it to the important learning target about analyzing the role of the Law of Large Numbers. No wonder my students were tired of this activity before we got to the “good stuff.” I would never reach this epiphany without studying learning targets. Now I wanted to see how I could streamline this activity so that we focused on the important learning goal of analyzing data in order to see the importance of the Law of Large Numbers.

I often created an M & M color distribution graph based on the manufacturer’s information in an excel spreadsheet, but could I take this idea that I use for a class demonstration and use it as a meaningful way to integrate technology in the classroom? Using the Excel spreadsheet program, I created a spreadsheet for each one of my classes. I created a table in which each student group would type in the number of M & Ms that they had for each color. I still had the students to practice their graphing skills and converting data among fractions, decimals and percents, but they only did this work for their own group data. I let the spreadsheets take care of compiling the class data. By using the Auto Sum feature, I was able to compile and graph the class data within a minute! The students had the opportunity to analyze and discuss the data immediately instead of waiting until the next day. I also kept the data from other classes so that each class could look at a variety of group data. This practice of seeing how adding other group data to the existing set of data helped to illustrate the idea of the Law of Large Numbers. Due to saving so much time by using the spreadsheets for compiling class data, we were able to conduct more experiments that helped students to see the connection of the Law of Large Numbers with experimental and theoretical probabilities.

This process of examining my learning targets and goals for learning has been very eye-opening. I have learned that more is

Streamline Your Learning Targets By Using Excel Spreadsheet, contd.

not necessarily better. The use of directed learning targets can help students to focus on their own learning, thus leading to a better understanding of content. I have also realized that technology can help to streamline our learning targets and help to save time in the data collection process. So I urge each of you all to try looking at your learning targets. Are you asking them to complete a variety of tasks before they get to your main learning target? If so, maybe you too can use technology to streamline your approach to helping students achieve your learning targets.

Jamie-Marie Wilder

KCTM Middle School Vice-President

Understandings and Misconceptions Revealed through Student Interviews, Julie Dunn

As a math intervention teacher for second and third grade students, I often present individual tasks in a one-on-one interview setting to assess mathematical understanding. Prior to Christmas break, I presented a task to assess student knowledge of the relationship between addition and subtraction. I placed the following cards in front of each student and asked the student to read the number sentence.

14		+		4		=		18
----	--	---	--	---	--	---	--	----

After the student read “14 plus 4 equals 18,” I removed the plus sign and replaced it with a minus sign. I then told the student to move the three number cards anywhere he or she needed to create a subtraction sentence. The following responses were given by three third grade students.

Student A:

Student A: “18-14=4.”

Me: “Can you show me another way?”

Student A: “Yeah. The turnaround fact. 14-18=4.”

Me: “How do you know?”

Student A: “Because you have to start with a big number.”

Student B:

Student B: “18-14=4.”

Me: “Can you show me another way?”

Student B: “No.”

Me: “What about 14-18=4?”

Student B: “That won’t work.”

Me: “How do you know?”

Student B: “Because there is no 18 in 14.”

Student C:

Student C: “18-4=14.”

Understandings and Misconceptions Revealed through Student Interviews, contd.

Me: "Can you show me another way?"

Student C: "18-14=4."

Me: "How do you know?"

Student C: "The biggest number on minus has to start here" (pointing to the far left).

If this was an individual pencil/paper task worth two points where student thinking was not probed, Student A and Student B would earn one point for their response since they gave only one correct answer. Student C would receive full points because both of her responses were correct. Since this task was not merely pencil/paper, the students had to explain their mathematical reasoning behind their responses. These interviews provided me with great insight into my students' understandings and misconceptions.

Let's look at the response of Student A. This student was able to correctly answer 18 minus 14 equals 4; however, Student A uses his understanding of "turnaround facts" to also respond with 14 minus 18 equals 4. Any elementary teacher who has ever taught fact families has seen this type of response when students attempt to show the subtraction sentences of a fact family. Student A does not understand the quantity of 18, how addition and subtraction are related, and 18 can be 17 and 1, 16 and 2, 15 and 3, 14 and 4, and so on. Student B is able to give 18 minus 14 equals 4, but is unable to produce another subtraction sentence. In order to probe deeper thinking, I ask Student B if 14 minus 18 equals 4. Her response shows understanding of "nested" numbers- that 14 is a part of 18, but 18 is not a part of 14. Student C is able to give both subtraction sentences accurately; however, her explanation yields a rules-based understanding of mathematics- that the big number is always the minuend that is subtracted from. (Don't worry middle school teachers- we will be working on that misunderstanding this semester.) These interviews gave me the opportunity to know if my students truly understood the mathematics of the task, or if my students simply used "math rules" to determine their answers. Pencil/paper tasks alone would not have revealed this. Math is more than accuracy; math should be understood.

Okay, time to reflect. Ask yourself, "Do my students truly understand math concepts? Do my teaching practices promote conceptual understanding?" The National Council of Teachers of Mathematics recently posted tips on how to evaluate student understanding in ways other than tests and quizzes entitled "Alternative Forms of Assessment". A few suggestions on their list include promoting student discussion, taking time to observe, as well as interviewing your students. The remaining types of assessments as well as suggestions for incorporating them into your classroom can be viewed at <http://www.nctm.org/resources/content.aspx?id=17290>.

Julie Dunn

KCTM Elementary School Vice-President

Northern Kentucky Council of Teachers of Mathematics News

January 5, 2010

NKCTM and Texas Instruments hosted two Teachers Teaching with Technology (T³) TI-Nspire workshops July 6-10 at the Larry A. Ryle High School in Boone County. Approximately 15 teachers attended these workshops.

NKCTM, the Center for Integrative Natural Science and Mathematics (CINSAM), and Pearson Publishing hosted a workshop October 29 at Twenhofel Middle School. Topics for the workshop included using graphing calculators to show statistical plots and find equations for best fit, the good, the bad, and the ugly use of technology, and Connected Mathematics 2. Approximately 20 participants attended.

Mike Waters

NKCTM Representative, watersm1@nku.edu

Why Should Teachers Incorporate Technology? Paula Thacker

There is an abundance of technology that is available to use in the classroom. In the math classroom we normally think of the graphing calculator as our technology, but we can also include document cameras, projectors, computer software such as EXCEL, CBR's, and resources from the internet such as geogebra to name a few. Why should teachers use this technology in their instruction?

One reason to incorporate technology is technology is an effective tool for discovery learning. Students remember concepts that they discover themselves. In our Algebra II classes students graph several translations of the absolute value functions. They then come up with a conjecture of the graph for horizontal and vertical translations by just looking at the function and not using the calculator. Later they apply this knowledge to other functions.

Engaging students is a major reason to use technology. Our students are practically born knowing how to figure out how to use gadgets. My students in a class that they were repeating it would willingly work some of the most mundane problems when they could show their answers when we were using the TI-Navigator or the document camera. The CBR is a great engaging tool and students are able to experience situations such as match the graph and collecting data.

Reinforcing concepts is another reason to use technology. Because students had experienced match the graph, they were able to use that knowledge to write about a time-distance graph a few weeks later without any other instruction.

Technology allows students who may not know arithmetic to learn mathematics. There are many students who reach high school and do not know their multiplication facts and some have trouble adding and subtracting. This should not be a barrier for them learning algebra. The calculator is a simple solution to this problem.

Students are always asking where or how a concept is used in the real world. Technology helps teachers incorporate more real world concepts. Through research on the internet, we are able to better explain and show where and how concepts are used outside of the classroom.

Technology increases our own understanding to better facilitate instruction. When we see a concept in a new way, our own understanding is better. Being flexible to try new ideas and technology allows us to be more flexible in our classrooms.

Hopefully, you are convinced to give technology a try in your classroom. There are plenty of activities on the internet, one of which is the Texas Instrument's web page and in text books. Go to conferences. Some of the best activities that I have are the ones I learned at T3, NCTM, and KCTM conferences. It does take time and extra work to incorporate into your lesson, but it is worth it!

Paula Thacker

November KCTM Executive Board Meeting Minutes

November 21, 2009
Gheens Academy, Room 202

Members Present

Beth Noblitt	Kari Ostby	Valeria Amburgey	Jamie-Marie Wilder
Barb Jacobs	Amy Herman	Laura Bristol	Seth Hunter
Emily Butler	Chyleigh Rose	Gloria Beswick	Julie Dunn
Martha Ferguson	Susan Collins		

Introduction of new board members, Julie Dunn (Elementary VP) and Seth Hunter

The following officers were elected to the board in our fall election: College Vice President – Valeria Amburgey, Elementary Vice-President – Julie Dunn, and Treasurer – Barb Jacobs. Seth Hunter was appointed to the board as High School – Vice President to fill Carlene Kirkpatrick’s unexpired term.

Approval of August 2009 meeting minutes

Barb made a motion to accept the minutes with no changes. Valeria seconded the motion. Motion passed.

Changes to Agenda

No changes were made to the agenda.

Update on Action items from August & volunteer to list Action Items from this meeting

Since the action items were all conference related, Beth and Kari addressed the action items before the meeting. Gloria volunteered to make a list of action items for this meeting.

President’s Report

Since most of our board meetings are spent addressing conference items, Beth proposed the idea of KCTM adopting a one day officer’s retreat in January for out-of-the-box thinking and brainstorming new ideas. The board was receptive to the idea. Barb made a motion to use KCTM funds (up to \$1000) to pay for the retreat expenses. Valeria seconded the motion. Motion passed.

NKU made a fresh electronic version of the KCTM logo. Beth will contact NKU and ask them to adjust the logo to look more like the original logo. Once the electronic logo is adjusted and approved by the board, Beth would like to have a box of official KCTM stationary printed and the electronic letterhead placed on the website (available to those with administrative rights). Barb made a motion to have KCTM funds pay for the cost of the letterhead. Susan seconded the motion. Motion passed.

KDE Report – Chyleigh Rose

Chyleigh reported that the state senate is currently working on an early graduation bill and a handout was shared on senate bill 1. Senate bill 1 has numerous changes to KY’s assessment and accountability program and requires the development of a unified strategy to reduce college remediation rates by at least 50% by 2014. Kentucky’s secondary schools must provide each student a high quality instructional core and common core standards along with EPAS, End-of-Course, and formative assessments. The bill lists 3 unified college readiness strategies: accelerated learning, secondary interventions, and a college and workplace readiness advising program. A college and career readiness public draft is available at www.corestandards.org and to find the latest developments from the national level go to the CCSSO website (Chief Council of State School Officers). The Educational Planning and Assessment System (EPAS) college readiness standards and program of studies standards alignment can be found at the KDE website by typing “pos crs alignment” into the search engine. State committees have already begun meeting and working on a KY K-12 set of standards. The standards

November KCTM Executive Board Meeting Minutes, contd.

should be released in early 2010.

The NAAP scores were recently released and KY showed a significant increase at the 4th grade level (one of only a few states that had a significant increase.) KY is now scoring at the national level. (approx. 11 states are scoring significantly below us, with approx. 23 states scoring significantly above us.) The 8th grade scores remained unchanged from two years ago, while the national average increased by two points.

2009-2010 Conference Report – Kari Ostby

The 2009 conference in Bourbon County had 206 members, 53 non-members, 91 speakers, 26 on-site registrants and 35 vendors in attendance. 130 sessions were offered. Kari shared a handout of speaker and attendee comments. Attendees were pleased with the flexibility of the sessions.

The 2010 conference will be a two day conference hosted by the Center for Rural Development (and co-sponsored by KCM) in Somerset, Kentucky on October 1st and 2nd. Laura and Kari will be visiting the site and making decisions on the conference session format. Since space will be an issue at the center, fewer sessions at a time will be offered next year and Kari proposed that we not have a computer lab with computers, but instead tell participants attending the conference to bring their own laptop, since the entire building is completely wireless. Several questions arose concerning the laptop vs. computer lab issue. Kari noted the questions and concerns and will address them with representatives at the site, before making a final decision. Also, since the KCTM conference will be a two day conference, the registration prices will need to be adjusted. Kari presented a handout with the following suggested fee schedule.

In addition to registration deadlines, payment deadlines were added for next year. Valeria made a motion to accept the suggested fee schedule. Barb seconded the motion. Motion passed with one nay vote.

Products – Emily Butler

A suggestion was made to sell the KCTM pins next year. Chase marketing worked out well as our supplier and Emily plans to use the same company next year.

Treasurer’s Report – Barbara Jacobs

Barb shared a handout with the treasurer’s report and a proposed budget for 2010.

Beginning Balance (checking) \$12,827.09

Total Income \$26,404.47

Total Expenditures \$18,092.66

Ending Balance (checking) \$21,138.90

Ending Balance (savings) \$27,493.66

Most income and expenditures were conference related.

The proposed budget for 2010 listed \$47,680 for expected expenses and \$39,500 for anticipated income.

Kari made a motion to accept the proposed 2010 budget. Martha seconded the motion. Motion Passed.

Website Update – Mike Waters via Beth

Mike was unable to attend the conference. We will receive a website update at our next meeting.

Newsletter Report – Martha Ferguson

Martha thanked those that contributed to the last newsletter. Deadline to contribute to the next newsletter is January 1.

Other

November KCTM Executive Board Meeting Minutes, contd.

Valeria shared a handout from the Kentucky Mathematics Educators conference session. Participants like having separate grade level specific categories available on the KCTM website.

The dates were set for the 2010 board meetings. All meetings will be at the Gheens Academy in Louisville.

February 20

May 22

August 7

November 13

Seth made a motion to adjourn the meeting. Valeria seconded the motion. Motion passed.

Susan Collins
KCTM Secretary

August KCTM Executive Board Meeting Minutes

August 15, 2009 (10:00 am)
Gheens Academy, Room 202

Members Present:

Beth Noblitt	Kari Ostby	Valeria Amburgey	Jamie-Marie Wilder
Maggie McGatha	Laura Plante	Martha Ferguson	
Emily Butler	Barb Jacobs	Robin Hill	
Gloria Beswick	Mike Waters	Joyce Watson	

KCTM Board Members homework.

Beth challenged the members to think about the meaning of KCTM with an activity she picked up at the affiliate meeting in July.

Approval of May 2009 Meeting Minutes

There were changes that had to be made to the minutes of the May meeting. Robin Hill noted that in the KDE Report from May the following:

- that in the minutes it states, “The adoption MOA says that 85% of the standards must be adopted.” Robin noted that the percentage should be changed to 100%.
- that in the minutes it states, “The draft of the high school mathematics standards will be shared...” Robin noted that the phrase “high school mathematics” should be changed to College and Career Readiness Standards.

Maggie made a motion to correct the May minutes. Joyce seconded the motion. The motion was passed to amend the

August KCTM Executive Board Meeting Minutes, contd.

May 2009 minutes.

Changes to the agenda.

There were no changes made to the agenda.

2009/2010 Conference Report—Kari Ostby

- Kari noted that we needed 9 overhead projectors and possibly 2 or 3 LCD projectors for presenters' use at the conference. Gloria suggested borrowing all projection systems from on district. Gloria said that individuals from PIMSER who are presenting will have their own projectors, so maybe they will allow other presenters to use theirs. Gloria agreed to ask PIMSER to see if KCTM can use PIMSER LCD projectors.
- John Wray will be the keynote speaker for the conference. Bourbon County will help pay with a grant that they have received but will want no recognition. John Wray will gather receipts and send for reimbursement.
- Only 85 non-speaker attendees are registered at this point. There are 55 speaker on the program. There are forty 80-minute sessions and forty 35-minute speakers. Kari was concerned about the low number of attendees. Mike will check last year's registration numbers to compare.
- Barb was concerned about grade band sessions. There are only 2 true high school sessions with several elementary sessions. Gloria was concerned with the number of technology sessions that are being offered. The reply was there are some. Gloria is willing to present if there is a gap in technology sessions. Kari noted that she would send a rough draft of the program soon.
- Kari noted that the scheduling for the day's sessions was going well and almost finished.
- Conference Meals—Panera will be served for breakfast (they will deliver the food); KFC will offer 4 lunch options for lunch (cost is approximately \$5 per person)
- Vendors—Mark has not heard from any at this point. Gloria noted that there were 29 registered with 24 confirmed. The tables for the vendors will be set up on Friday.
- MESA Banquet—Gina Follette is the MESA Banquet Chair. She will take care of the program and contacting awardees.
- Dinner for the banquet will be buffet style with the choice of Pork or Linguine with shrimp and mussels. There will be a variety of vegetables offered along with a salad. Dessert will also be served. Special consideration was given so that there was enough offerings for anyone who is a vegetarian.
- Hospitality Room—Jamie-Marie is in charge of this for the conference. Bottles of water will be provided for speakers. The budget is \$150. Food offerings will be snack foods.
- Program—The program is finished with only minor work on the grant page and biographical information on John Wray.
- Affiliation Designation—Laura asked that the sessions in which math coaches or MIT students could possibly have a special designation such as a logo. Discussion occurred in order to understand the purpose of a special designation for specific individuals. The question of whether this option should be offered for any individual who wants to designate a special affiliation with a math group was called into question. The matter was tabled and noted for further discussion at a later date.
- Custodians for conference—Bourbon County will send KCTM an invoice.
- Vice President Sessions—Valeria discussed last year's session with college teachers on the benefits of KCTM. She is working with Maggie and Jamie-Marie for a common agenda for all VP sessions to talk with members. Valeria wants

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to be sure to show the website. Due to vacancies for the Elementary and High School Vice Presidents, sessions will be geared for elementary/middle school members and high school/college members. Valeria and Jamie-Marie will co-present.

- 2010 KCTM Conference—The original thought of having the conference in Bowling Green at a new Warren County high school is not a possibility at this time. Kari had visited Fern Valley and Shelby Campus with no luck in securing a location for next year's conference. Kari has looked into the Rural Development Center in Somerset as a possible venue.
- The Center for Rural Development (possible host for 2010)—Below is a listing of points to consider for the conference to be held in Somerset:
- The cost for a 2-day conference with the MESA banquet will be approximately \$3000.
- Space is a concern because the Center has large rooms that will have to be curtained off to accommodate break-out sessions.
- Food can be brought in for the conference.
- There are plenty of hotels in this area for attendees.
- The Center for Rural Development is wireless.
- There was conversation about having the conference in September instead of October to avoid time conflicts with other conferences and school fall breaks.

Maggie made a motion that Kari should proceed with studying the possibility for the 2010 KCTM Conference to be in Somerset. Barb seconded this motion. The motion was passed.

Products—Emily Butler

- Emily has ordered bags, name tag lanyards, graph paper notebooks and hand sanitizer holders.
- Mike wanted to know the size of the name badges for the sizing of the name tags.
- Emily said that September 15 will be the deadline for order products.
- Emily will receive the bill and count all merchandise with the help of high school workers.

All shirts this week will feature the KCTM web address.

President's Report—Beth Noblitt

- Beth attended the Leadership Conference in New Orleans in July. While at the conference, Beth wrote a strategic plan. She will share this plan with Maggie and Kari and then later on with the group.
- Beth's Plan outlines... 1 Need and 2 Goals from the plan
- Need: increase member benefits through (a) send more email bulletins and (b) start on-line discussion boards on our websites.
- Goal: offer more PD by (a) workshop in an area beside where the conference is held; (b) e-workshops and (c) pre-service teacher workshops.

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- Goal: KCTM will serve as link between teachers and policy makers by (a) Vice-Presidents will communicate more directly with teachers.

Treasurer's Report—Barb Jacobs

- August 2009—Checking Account
- Beginning Balance--\$2394.08
- Total Income--\$11,753.70
- Total Expenditures—1,320.69
- Ending Balance--\$12,827.09
- August 2009—Savings Account
- Ending Balance: \$27,441.74

Officer Nominations—Susan Collins (via email)

- Susan sent an email saying that all nominees for office have been sent notifications. All nominees are confirmed accept for Dr. Karen Lafferty.
- Robin suggested that all nominations should have a simple bio attached (years of experience and other service with a 100 word maximum).
- The High School Vice-President has moved to another state and will have to be replaced. The by-laws state that Beth can appoint someone. A discussion was open on possible replacements. Beth will make contact with possible appointees.

Website—Mike Waters

- Mike noted that there has been one annoyance with the email reminder to vendor who do not buy tables or non-profits. It has only affected two people so far.
- Gloria said that the vendors need more directions on where to pay.
- Kari said that the website needs more specific directions that one must be a member to speak.
- Mike made contact with affiliates. Five responded with interest on these affiliates joining in posting things on-line in conjunction with KCTM. Mike said that he would look at a pay scale for the affiliates and present it at the next meeting.
- Barb suggested Mike send a special invite to affiliates to KCTM with a special session for our affiliates.

Newsletter Report—Martha Ferguson

- Deadlines for upcoming newsletters are as follows:
- September 1st
- January 1st
- April 1st

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- Beth noted that there are NCTM awards for chapter publications. Discussion occurred over having four newsletters. Gloria suggested keeping three newsletters and then have more emails with lesson ideas.
- Beth suggested that a brainstorming session needed to happen with her, Maggie, and Kari about this matter.

KDE Report—Robin Hill

- Robin presented the ACT results to the group. It was noted that ACT Math scores either stayed constant or increased for all demographic groups.
- There is a new Commissioner of Education for Kentucky. There are still talks with potential candidates for a new Math Consultant.
- The KCCT scores will be released to districts on September 23rd.
- The Common Core Standards (College Readiness Standards) will be ready approximately mid-September for public comment.
- The Achieve website has some information on Common Core Standards for updates. According to Robin, all districts must adopt 100% of the Common Core Standards.
- There is a possibility that a state-level official could be presenting the Presidential winner at the 2009 KCTM Banquet.

KCTM Math Grants—Barb Jacobs and Jamie-Marie Wilder

- Barb Jacobs and Jamie-Marie Wilder met to read the four grant proposals that were submitted for the Teacher Support Grants. The winners are listed below with the name of the winning teacher, school affiliation and his/her project title:
- Denise Justice—Raceland District Math Coaches—Math In A Bag
- Lesli Poynter—Ballard High School—Fathom Linking Math and Science
- Cynthia K. Smith—Louisville Male High School—Document Camera for Classroom Success

Other—

- It was noted that the next meeting will be on November 21, 2009 at Gheens Academy.
- Mike made the motion to conclude the meeting. Barb seconded the motion. Motion was passed and the meeting was concluded.

Susan Collins
KCTM Secretary