

# THE NUMBER LINE

October 2013

[www.lamath.org](http://www.lamath.org)



LOUISIANA ASSOCIATION of  
TEACHERS of MATHEMATICS

## Table of Contents

<a href="#"><u>President's Message</u></a>	2
<a href="#"><u>Important News for Members</u></a>	3
<a href="#"><u>Teacher Recognitions</u></a>	4
<a href="#"><u>Opportunities for Teachers</u></a>	5-6
<a href="#"><u>Opportunities for Students</u></a>	6-7
<a href="#"><u>NCTM Update</u></a>	7-8
<a href="#"><u>Vice-Presidents' Circle</u></a>	9-12
<a href="#"><u>Affiliate News</u></a>	13-14
<a href="#"><u>Louisiana Department of Education Update</u></a>	15-17
<a href="#"><u>Teachers' Technology Corner</u></a>	18
<a href="#"><u>Math Resources</u></a>	19
<a href="#"><u>Executive Council Member Contact List</u></a>	19
<a href="#"><u>Membership Renewal</u></a>	19



Look for this icon on articles which spotlight members of our Executive Council who work tirelessly as volunteers on behalf of the organization.

Hyperlinks in the Table of Contents may be used to quickly access specific articles.



## PRESIDENT'S MESSAGE

Greetings and Felicitations! On behalf of the LATM Executive Council, I would like to welcome you to the 2013 academic year.

### Annual Executive Council Retreat

The Executive Council had a productive and reflective summer agenda. Our summer began with our Council retreat at which members planned for the current school year and began looking towards the future.



One outcome of the retreat was to examine our use of technology as a way to disseminate information to members. As a result, you can now find us on FACEBOOK with the name Louisiana Association of Teachers of Mathematics-LATM. Please "like us" at <https://www.facebook.com/Lamathteachers> and visit us often as we work towards making this page a useful source of information. We welcome your input on ideas to make the best use of this social media.

In anticipation of the 2014 NCTM Annual Conference to be held in New Orleans, LATM will **not** hold its annual conference this fall. Instead there will be a meeting for all members in April at the NCTM conference during which we will recognize our LATM Outstanding Teachers. Numerous concerns from our members that the dates for the NCTM National Conference will conflict with Louisiana's assessment have led to discussions between some Executive Council members and the NCTM planning committee. Discussions have centered on ways that Louisiana math teachers can benefit from the NCTM conference. At this time, the planning continues with no decisions yet...so stay tuned.

### NCTM Leadership Conference

The NCTM Leadership Conference was held in Annapolis, Maryland in the month of August. The focus of this conference was on how NCTM will make use of the various technologies and social media. Representing LATM were **Amanda Bundrick** and **Jeffrey Weaver**. **Cat McKay** and **Sandra Lebouef**, both LATM Executive Council members, were also in attendance as representatives of the Acadiana Council of Teachers of Mathematics (ACTM). I want to take this opportunity to thank each of these Council members for their willingness to grow professionally.

It became even clearer at the NCTM Leadership conference that members play a vital role in determining an organization's direction. Therefore, I encourage you to become more active by suggesting services that LATM can offer to its members.

### Election of Officers

You will receive a slate of candidates for new officers and a link to vote online since we will not have a fall meeting. Please look for this e-mail and please take the opportunity to vote!

On behalf of LATM, I extend the Executive Council's hopes and best wishes in your quest to help your students reach the CORE of mathematical enlightenment.

*Jeffrey Weaver*

Jeffrey Weaver  
LATM President



[Return to Table of Contents](#)

# IMPORTANT NEWS FOR MEMBERS

## Membership Meeting and Awards Recognition – April 2014

LATM will **not** hold its 2013 Fall Conference, but instead urges its members to attend all or part of the 2014 NCTM Annual Conference which will be held in New Orleans from April 9-12, 2014. The organization will hold a meeting for all LATM members to honor the LATM Outstanding Teachers and hold its annual business meeting. Knowing that most Louisiana Math teachers will not be able to attend until the end of week, the Executive Council is investigating a time and place to hold such a meeting on Friday or Saturday. Details will be forthcoming when plans can be finalized.

## Nominate and Vote for LATM Officers!

The nominations committee is seeking nominations for the office of President-elect. The President-elect serves one year before starting a two-year term as President. Please consider those who have been effective leaders in your region, consult with them about their agreement to be nominated, and send nominations to President Jeffrey Weaver at [Jtweaver81@hotmail.com](mailto:Jtweaver81@hotmail.com) by October 15, 2013.

Because the LATM constitution requires that officers be elected in the fall of each year and the 2013 LATM Fall Conference will not be held, members will receive an e-mail with a link to vote online once the slate of nominees is finalized.

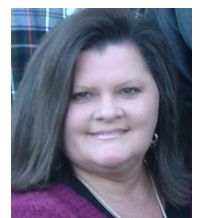
Please take the time to nominate an outstanding candidate for President-elect and to vote in the election.

## LATM is Now on Facebook!

Please send suggestions for topics and ways to best use our social media account



**Stacey Magee** currently serves as the Secondary Math Curriculum Specialist for St. Tammany Parish Schools. She has held this position for the past five years. Prior to this, she taught math at Mandeville High School for 16 years and Glen Oaks High School for one year. She serves the LATM Executive Council as Secretary and is a member of SEATM and the Louisiana Council of Supervisors of Mathematics. She enjoys the opportunity to help teachers in her parish with professional development and strategies to strengthen classroom teaching and promote student engagement and learning.



[Return to Table of Contents](#)

# TEACHER RECOGNITIONS

## State Finalists for 2013 PAEMST Award Announced



*Allison Brignac*

The state 2013 mathematics finalists for the Presidential Award for Excellence in Mathematics and Science Teaching are **Allison Brignac** from Lowery Middle School in Ascension Parish and **Lerri Cockrell** of David Thibodaux STEM Magnet Academy in Lafayette Parish. Congratulations, ladies!



*Lerri Cockrell*

Math and science finalists for 2012 and 2013 were joined by school administrators and family members during the annual state recognition luncheon held at the Governor's Mansion on Tuesday, September 17<sup>th</sup>, 2013. At this time the announcement of the 2012 Presidential Awardees for Excellence in Mathematics and Science Teaching still has not been made, but this was a well deserved day of celebration for all the finalists. Sincere thanks to former Presidential Awardees, **Pam Goodner**, **Carolyn Sessions**, and **Maryanne Smith**, who served as mentors or members of the state selection panel this year.

Nominations for the 2014 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) will soon be accepted. This celebrated award, administered by the National Science Foundation for the White House, identifies outstanding mathematics and science teachers in grades K-12. Competition alternates each year between teachers of grades K-6 and teachers of grades 7-12. Elementary teachers (K-6) may be nominated for the 2014 award.

Additional information is available and nominations can be made at [www.paemst.org](http://www.paemst.org). Individuals who are nominated will be notified by e-mail of their nomination; therefore, it is necessary that a working e-mail address be provided for each teacher nominated. LATM members are encouraged to nominate outstanding K-6 teachers of mathematics for this award. Teachers may self-nominate. For more information, contact [jean.may-brett@la.gov](mailto:jean.may-brett@la.gov).



*Above, left to right: **Tonya Evans** (NLMA), **Trisha Fos** (BRAC TM,) and **Ellen Daugherty** (LATM) represent their respective affiliates at the NCTM Delegate Assembly in April 2013.*

[Return to Table of Contents](#)

## OPPORTUNITIES FOR TEACHERS

### Fluency Training Offered to K-5 Educators by Developers of EngageNY Math Curriculum

Common Core, Inc. and the Gordon A. Cain Center at LSU have teamed up to provide a unique opportunity for teachers and curriculum leaders throughout the state who are using *A Story of Units* (The EngageNY math curriculum for grades K-5) to learn from one of its curriculum writers and master trainers, Bill Davidson, about fluency, a major component of instruction woven across the mathematics curriculum. Fluency practices allow students to improve their speed and accuracy by simultaneously building confidence in their ability to do mathematics.

Come meet the team and explore a variety of fluency practices including sprints, counting exercises, and white-board exchanges. K-5 teachers and instructional coaches will leave with new ideas that can be implemented in the classroom immediately.

**Date:** Saturday, October 5

**Location:** J. Wallace James Elementary School  
1500 W. Willow Street  
Lafayette (Scott), LA 70583

**Directions:** [Map](#)

**Sign-In:** 11:00 – 11:30

**Workshop:** 11:30 – 3:30

**Fee:** \$15.00 – *pre-registration required* at <http://commoncore.org/events>

**Registration Deadline:** October 2

### PBS Innovation Math Challenge

#### [Innovation Math Challenge](#)

Submit a math media idea, and you could win **\$1,000**  
AND be included in a [PBS LearningMedia™](#) math collection!

Do you have an idea for educational math media for middle school students? Do you know someone who does? Running now through November 22, 2013, this challenge seeks innovative middle school math content from the public. Games, infographics, videos, and interactive activities or any interesting, relevant digital math content will be considered. Submit an idea and if it is selected, you will win \$1,000!

WGBH Education is seeking innovative, web-based digital math resources to become part of the *Building Content, Capacity, and Diversity Initiative*. This initiative will provide 420 enhanced middle school math digital resources, available free on PBS LearningMedia ([www.pbslearningmedia.org](http://www.pbslearningmedia.org)) in 2014.

#### ***Who can enter?***

This challenge is open to anyone with an innovative idea: students, educators, producers, gamers, programmers, and all creative individuals. You can enter as an individual or team, as long as the entrant submitting the resource is 18 years or older.

[Return to Table of Contents](#)



## Calling All Mathematicians and Mathematics Educators!

### Become an LATM Journal Reviewer

Are you looking for academic service and interested in reviewing articles for the *LATM Journal*? Become part of an expert team selected from across the state to read and review mathematics and/or mathematics education articles depending on their expertise.

Have something exciting to share with other educators? Articles for the 2014 issue will be accepted throughout the year. Early submission is encouraged for inclusion as the review process can take two to three months. Download submission information at <http://lamath.org/journal/LATMJournalSubmissionInformation.pdf>.

Become a guest columnist! Share an opinion about a current mathematics or mathematics education topic with your fellow LATM members

The 2013 issue of the *LATM Journal* is planned for release in October. This issue will provide a variety of articles ranging from an article on African fractals to an article on *iPad*® applications for the classroom. Go to <http://www.lamath.org/journal/index.htm> to read all past issues.

Contact *LATM Journal* Editor, DesLey Plaisance ([desley.plaisance@nicholls.edu](mailto:desley.plaisance@nicholls.edu)), for further information.



## OPPORTUNITIES FOR STUDENTS

### Noetic Learning Math Contest 2013-2014

- **Fall Contest Date:** November 14, 2013 (Make up dates: November 15 - 27)
- **Spring Contest Date:** April 10, 2014 (Make up dates: April 11 - 23)

This is a **national problem-solving contest for elementary students** in grades 2, 3, 4, 5 and 6. The contest is in its 5th year and is quickly gaining popularity in elementary schools across the country. It's convenient for you to set up and fun for your students.

Here's how to get started!

- Register now at <http://www.noetic-learning.com/mathcontest>
- Administer the test within the testing window at your own school
- Grade the test papers and report the scores
- We will announce the winners and send you the medals

Additional benefits of students' participation

- Works specifically on math problem-solving skills
- Helps to increase standardized math test scores
- Sends a positive message: it's COOL to be good at math!

### NCWIT Award for Aspirations in Computing!

The NCWIT Award for Aspirations in Computing honors **young women** active and interested in computing and encourages them to pursue their passion for technology. National award-winners are recognized for their aspirations, not just accomplishments, with Affiliate Award competitions available in all 50 states, the District of Columbia, Puerto Rico, and the US Virgin Islands.

The competition is open to any U.S. high-school-level female (grades 9-12). **Applications were opened on September 15, 2013, and must be submitted online at [www.aspirationsaward.org](http://www.aspirationsaward.org) no later than 11:59 p.m. ET on October 31, 2013.** Winners will be announced in December 2013. Applicants are asked to provide the name and e-mail address of a school official to endorse their application. This person could be a teacher, technology specialist, counselor or other school official. From those school officials, we will select the NCWIT Louisiana Educator Award Winner! Recipients of the Educator Award receive up to \$1000 in reimbursement for a professional development activity.

National student award-winners receive \$500 in cash, a laptop, an engraved award, and an expenses-paid trip to the award ceremony for the student and a parent/guardian in March 2014. Louisiana student award-winners receive a gift bag overflowing with cool prizes, an engraved award, and an invitation for the student and her parent/guardian to the Louisiana State Award Ceremony in April 2014.

Contact Dr. Jenna Carpenter, Louisiana Tech University, at [jenna@latech.edu](mailto:jenna@latech.edu) for additional information.

## NCTM UPDATE

### Common Core State Standards FAQ Video

You asked, and we listened! NCTM created a video to answer many questions regarding the new standards. Take a look at some of the most popular myths and facts to be better informed. Share it with parents as the new school year begins. **Click the graphic to play the video.**



### Common Core Exams Shine a Light on Appropriate Use of Calculators

Students taking Common Core math exams in grades 3–5 will not be permitted to use calculators on the exams, but students in high school will have some access to the devices, according to policies created by the two consortia developing the exams. In general, language in the standards about calculators focuses on their appropriate, strategic use in the classroom. It will be easier to judge the effects of the policy when more test questions are made available, according to NCTM President Linda Gojak, but overall, she is “not too troubled” by the policy. [Read about it in Education Week.](#)

### NCTM Mobile APP

The NCTM app gives smartphone users easy, efficient access to timely NCTM information—from updates on new publications and best sellers to the latest information on upcoming conferences and professional development opportunities. Users can be up to the minute on NCTM activities, teaching tips, and classroom resources. The app also includes our Facebook feed, Flickr photos, and YouTube videos. Click [here](#) to check it out!

### New Response to Intervention Digital Series

**Math of Tomorrow (MOTO)** is a new Response to Intervention (RtI) digital series for kindergarten through second grade. [MOTO](#) comprises seven digital student books, available on iTunes, Google Play, and Amazon, and in Web-based format on the NCTM website, and a comprehensive teacher website—Teacher Connect—purchased through NCTM. The entire series is designed to meet and support the CCSS for Mathematics.



[Return to Table of Contents](#)



Housing for [NCTM's 2014 Annual Meeting & Exposition](#) in New Orleans, April 9–12, is now open.

[Reserve housing now](#) and make a plan to connect and collaborate with thousands of colleagues at the nation's premier math education event.

NCTM has negotiated rates as low as \$169 per night in select hotels near the Ernest N. Morial Convention Center. Book your room early to take advantage of the lowest rate at your preferred hotel before rooms sell out.

- [Hotel Reservations](#)
- [Hotel Map and Rates](#)
- [Hotel Descriptions](#)

#### Enjoy the Benefits of an Official NCTM Hotel

- ✓ **Save money.** NCTM negotiates the lowest possible rates at our conference hotels, and we will never charge you a booking or service fee, as online discounters do.
- ✓ **Get the best networking.** Whether you're having dinner or grabbing your morning coffee, you'll have more opportunities—before and after sessions—to connect with leaders in education, consultants, and other colleagues.
- ✓ **Enjoy the convenience.** Our headquarters hotel is the Hilton New Orleans Riverside. Other NCTM hotels are also within walking distance of the Ernest N. Morial Convention Center, so you'll be right where the action is.

Don't Delay! [Book your room](#) in New Orleans and save!

*Registration for the 2014 NCTM Annual Meeting & Exposition opens November 1.*

**Enter to Win a FREE Night at Your Hotel.**

[Book Now](#)

*You could be the lucky winner of one free night in New Orleans. Book your room by March 12, 2014, to enter.*



Get ready for the jazziest [MET Celebration](#) yet, Friday, April 11!



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[Return to Table of Contents](#)



# VICE-PRESIDENTS' CIRCLE

## Fantastic Fluency in the Common Core State Standards

Amanda Bundrick  
Vice-President for Elementary Schools

Drill and kill? No thank you! This is not what the Common Core State Standards mean when Fluency is listed as one of the three pillars of Rigor. As stated in the overview of the math shifts, "procedural skill and fluency call for speed and accuracy with core functions in math." So, how do we incorporate this practice into the daily class routine without printing hundreds of blackline masters of basic facts?

One way teachers can bring mathematical fluency into the class is by creating nametags that serve as entrance/exit tickets. Another way is to provide transition questions while students wait in line for the restroom, lunch, etc. Some of the examples provided below have been adapted from [www.EngageNY.org](http://www.EngageNY.org).

**K.CC.4a:** *Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.*

Use latex gloves (be careful of allergies) with circular stickers labeled using the digits 1-5 on a child's left hand. When you greet students at the door, begin by saying, "**Count with me to 3.**" Have the students count beginning with their pinky up to 3. **Tell them to stay there and then count down from 3.** Continue counting up and down daily. Later add a second glove with 6-10.



**1.OA.6:** *Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).*

When you hide your fingers, ask students to identify the number of fingers flashed when you snap. Then ask students to say an "adding to" sentence that shows how to make 5. For example:

**T:** (Flash 4 fingers, hide them, then snap.)

**S:** 4.

**T:** Now use four in an adding sentence to make 5.

**S:**  $4 + 1 = 5$ .

**2.OA.2:** *Fluently add and subtract within 20 using mental strategies.*

Begin with computer labels as sticky nametags. Pre-write an equation on each nametag before the beginning of each day. Use the following expressions which show "adding tens and some ones."

$$\begin{array}{ccccccccc} 10 + 1 = & 10 + 2 = & 10 + 3 = & 10 + 4 = & 10 + 5 = & & & & \\ 10 + 6 = & 10 + 7 = & 10 + 8 = & 10 + 9 = & 10 + 10 = & & & & \end{array}$$

Each student will master his/her nametag for the day and be able to quiz peers on their nametags as they meet each other in line in different settings. The next day,

each student receives another nametag which may or may not be the same fact they received the day before and the process continues. Students can place the sticker on an index card for a formal exit ticket.

**3.OA.9** *Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.*

Provide nametags with incomplete patterns for students to solve using skip counting. Later have students compare these patterns to the multiplication tables.

**0, 2, 4, \_\_\_\_, 8**  
**18, 21, \_\_\_\_, 27**

**12, \_\_\_\_, 16, 18, 20**  
**5, 10, 15, \_\_\_\_, 25**

**3, 6, \_\_\_\_, 12**  
**45, 50, \_\_\_\_, 60**

**4.NBT.1:** *Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.*

Give students a higher level of thinking fluency task while focusing on multiplying by ten. Ask for the answer in unit form and standard form for the following types of nametags.

**10 x 5 ones (say 10 times as many as 5 ones);** the answers given should be 50 ones in unit form and 50 in standard form

**10 x 8 tens (say 10 times as many as 8 tens);** the answers given should be 80 tens in unit form and 800 in standard form

**10 x 2 hundreds (say 10 times as many as 2 hundreds);** the answers given should be 20 hundreds in unit form and 2,000 in standard form

**5.NBT.2:** *Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.*

Provide nametags of multi-digit numbers including those with decimals and multiply by 10, 100, etc. Have students read their nametags properly before providing the solution. Many students insert "and" when there is no decimal. Once students become fluent with multiplying a number by powers of 10, move on to dividing by powers of 10.

**4,567 x 10    12.1 x 10    2,504,699 x 100    0.379 x 100**

These are just some ways that fluency can be incorporated into the daily routine. Find new and creative ways for your students to become fluent with the various standards within your grade level. Also, don't forget to look at the fluency students should have mastered the year before and think about incorporating that into your daily review for the first semester.

You can provide suggestions or reactions to this article and other articles by posting on our Facebook page.



**Amanda Bundrick**, Vice-President for Elementary Schools, is in her 9<sup>th</sup> year in education, all served in Title I schools in Caddo Parish. Her interests include supporting females in STEM education. Amanda has served as an adjunct instructor for Centenary College's Department of Education assisting with the development of mathematical content and resources for future teachers. She is currently serving as a Common Core Advocate and assisting with implementation of the CCSS as a member of the LDOE Teacher Leaders.



[Return to Table of Contents](#)

## Ratios, Rate, and Proportions

Sandra LeBouef  
Vice-President for Middle Schools

To meet the rigor required by the Common Core State Standards and Mathematical Practices, we should be providing hands on activities and problem-based learning for all students at each grade level. These types of activities require students to think critically and rethink their procedures once they start to question their ideas and the ideas of others. The two activities below are excellent sources for an activity when teaching ratios, rates and proportions in middle school math.

[Cool Kool-Aid Experiment](#) from the Alabama Learning Exchange

This activity introduces students to the idea of rates via a familiar and tangible product: Kool-Aid. Students will add varying amounts of Kool-Aid powder to a set amount of water, thereby producing a sensory experience of rates. The Kool-Aid example also provides a base experience upon which other examples can build.

[Grid and Percent It](#) from the NCTM's Illuminations site

This lesson begins with a basic visual used in many textbooks: a  $10 \times 10$  grid as a model for demonstrating percent as "parts per hundred." It goes on to extend the model to solve various percentage problems. Especially valuable are the illustration of each problem and the thorough explanation that accompanies it. This is an exceptional lesson plan adapted from "A Conceptual Model for Solving Percent Problems," which originally appeared in [Mathematics Teaching in the Middle School](#), Vol. 1, No. 1 (April 1994), pp. 20-25.

## Classroom Challenge Formative Assessment Geometry Lesson

Penny Gennuso  
Vice-President for High Schools

The formative assessment classroom challenges found on [www.map.mathshell.org](http://www.map.mathshell.org) are a great way to build conceptual understand and work to change the classroom culture. The lessons move students and teachers into different roles from those common in most classrooms. Students take more responsibility for their own work and they engage in "productive struggle" with rich challenging tasks. Many teachers find it difficult to shift their practice, as described in the CCSS. One way to begin to shift practice is by inserting occasional rich lessons such as Classroom Challenges from time to time.

The lesson, [Finding Equations of Parallel and Perpendicular Lines](#), emphasizes MP1-Making sense of problems and persevere in solving them, MP3-Construct viable arguments and critique the reasoning of others, MP7-Looking for and make use of structure, and HSG-GPE.B.4-Use coordinates to prove simple geometric theorems algebraically. The pre-lesson formative assessment task asks students to identify four linear equations out of eight that would form sides of a rectangle. This task is used to determine the kinds of difficulties students will have with it.

The link below provides a number of resources, videos, student work samples and professional development modules that can support teachers' work in implementing the formative assessment lessons. There are also sample course outlines that show how to situate this work in standard middle and high school math courses.

<http://collegeready.gatesfoundation.org/Learning/MathDesignCollaborative>

# Energize the Classroom with Interesting Mathematical Anecdotes

Vickie Flanders  
Vice-President for Colleges

Are your students bored in your math classroom? If so, try integrating attention-grabbing anecdotes into your mathematical lessons. For example, did you know that Evariste Galois, the father of modern algebra, died at the tender age of twenty in a duel because of a love affair that went sour? Well... actually, there is some speculation as to what exactly happened, but none the less, the story of this young genius is quite interesting.

Galois was born in a small town near Paris in 1811 into a family rooted in French Revolution activities. He was outspoken about the government and even imprisoned at one time, but this did not lead to the cause of his death, even though it seems that this is what Galois may have wanted people to believe. It is known that Galois fell deeply in love with a young lady, and after some time she refused to continue the relationship; but the reason for her decision and who the duel was with is unclear. What is known is that Galois supposedly stayed up all night before the duel writing down mathematical proofs in a letter to his friend Auguste Chevalier so that his work would be saved. But, what if Galois had gotten a good night's sleep? Would he have won the duel? If so, what other mathematical discoveries might he have made?

Another interesting mathematician to discuss is Archimedes, undoubtedly the greatest mathematician of ancient times. Even though he was in his seventies when he died in 212 BC, he suffered an untimely death as well. Archimedes was arrested by a Roman soldier during the Battle of Syracuse, but he wanted to finish writing a proof and insisted the soldier wait for him to do so. The soldier, not knowing who Archimedes was, became impatient and killed him.

Archimedes was close to solving the tangent line problem, but it is not known exactly what Archimedes was working on at the time of his death. Could it have been the proof to the tangent line problem? Nearly two thousand years pass before the tangent line problem was solved by Newton and Leibniz, independently of each other. Solving the tangent line problem opened the door to their incredible discovery of calculus in the latter part of the 1600's.

Take some time to ponder and observe how far calculus and its applications have taken us in three hundred years. What if Archimedes had solved the tangent line problem? What if we had two thousand years of calculus and its applications? What would the world be like today? Would we be traveling in a starship exploring the galaxy? What if?

Sources used for information on Galois:

<http://plus.maths.org/content/genius-stupidity-and-genius-again>  
<http://www.galois-group.net/g/EN/intro.html>

Sources used for information on Archimedes:

<http://www2.stetson.edu/~efriedma/periodictable/html/Ar.html>  
<http://www.math.wpi.edu/IQP/BVCalcHist/calc2.html>  
<http://www-history.mcs.st-and.ac.uk/Mathematicians/Archimedes.html>  
[http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/The\\_rise\\_of\\_calculus.html](http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/The_rise_of_calculus.html)



[Return to Table of Contents](#)

## AFFILIATE NEWS

### Acadiana Council of Teachers of Mathematics (ACTM)

The Acadiana Council of Teachers of Mathematics is holding a mini-conference on October 19, 2013, in Maxim Doucet Hall on the University of Louisiana-Lafayette campus. Registration will be from 8:15 until 8:45 a.m. There will be 3 sessions per grade band with a 10 minute break between each session. Bands are: K-2 Number Sense, 3-5 Fractions and Decimals, 6-8 Equations and Expressions, High school Non-Linear Equations, Vectors and Matrices, and Statistics.

Districts that are part of ACTM will be sent a flyer, but everyone is welcome. Since lunch will be provided, a notice of intent from educators who receive a Google registration e-mail is requested and others should send an e-mail to Cat McKay at [cwm7930@earthlink.net](mailto:cwm7930@earthlink.net).



*Linda Gojak, NCTM President, observes as Leadership Conference participants work. Cat McKay (far left) and Sandra LeBouef (back right with computer) represented ACTM at the conference.*

### Baton Rouge Area Council of Teachers of Mathematics (BRACTM)

BRACTM will hold its first general membership meeting on Thursday, October 24, 2013. Please join us for dinner beginning at 5:00 p.m. with the meeting to follow at 5:30. Lynne Tullos will be the guest speaker and focus our discussions on EngageNY and common core transitioning. The meeting will be held at School Aids, 9335 Interline Avenue, Baton Rouge.

Mark your calendar for our EXTRAORDINARY EXPLORATIONS IN MATH AND LITERACY mini-conference on Saturday, January 25, 2014, from 8:00 a.m. - 4:00 p.m. at the LSU Lab School. We encourage attendees from around the state! Not only will there be various presentations on a variety of mathematical topics from kindergarten to college, but two award winning guest speakers, Steven Murphy and Brod Bagert, are the highlights of our conference.



**Stuart Murphy** (left) has worked on the development of over a dozen major textbook programs and visual learning strategies from Pre-K through high school. He is author of the *MathStart* series which uses simple stories coupled with diagrams, graphs and other visual models to teach everything from probability and pattern recognition to area, capacity, and negative numbers

**Brod Bagert** (right) is a poet from the City of New Orleans. He studied the classics in Latin and Greek, wrestled and boxed to vent adolescent angst, fell in love with and married his high-school sweetheart, practiced law, served in public office, and reared four children that are the joy of his life. Now he loves to travel worldwide entertaining audiences with his poetry.



[Return to Table of Contents](#)



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## Northwest Louisiana Mathematics Association (NLMA)

Caddo Parish Public Schools was awarded a Math Science Partnership Grant for the 2013-14 school year. Project T.A.M.E. was designed to include 8th grade math teachers from throughout the parish. During a summer institute, thirty-five mathematics teachers from fourteen, middle, K-8, and 7-12 campuses attended a three-week professional development opportunity held at the Caddo Parish School Board, July 8 – 26, 2013. These teachers participated in hands-on activities led by Dr. David Thomas, professor at Centenary College, and Roger Vance, master teacher at Cope Middle School in Bossier Parish. Participants were introduced to the Mathematical Practices and the Common Core State Standards and how these new changes in curriculum would affect their classroom. The instructors introduced each eighth-grade standard and explained what prerequisite skills were needed in order for students to master the concept. They also modeled activities and demonstrated how the mathematical practices were embedded in each standard. Each participant was given a graphing calculator and time to utilize this tool in various activities. The project will continue throughout the 2013-14 school year when teachers will attend follow-up sessions on Fridays and Saturdays. These sessions will be led by Laureen Stephens, K-12 Mathematics Supervisor; Jan Graff, K-12 Science Supervisor; Tonya Evans, K-12 Title I Mathematics Supervisor; and Susan Tompkins, Mathematics Science Technology Coordinator.



*Dr. Dave Thomas interacts with MSP teachers during a measurement activity.*



*Susan McGowan, teacher at Youree Drive, and LeRonn Burris, teacher at Huntington, make presentations at the Caddo MSP Summer Institute.*



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## Louisiana Council of Supervisors of Mathematics (LCSM)

LCSM held its spring meeting on Friday, May 3, 2013, at the Vermilion Conference Center in Lafayette. Mandy Boudwin, LDOE Mathematics Program Coordinator, was our guest speaker and shared curriculum updates from Louisiana Department of Education. A meeting is planned for the fall 2013. LCSM members should look for an e-mail announcing the date, location and time.

Membership in LCSM is open to mathematics coordinators, coaches, supervisors, or other educators who provide mathematics leadership in a school or a district. To receive membership information, send contact information to Stacey Magee, Secretary, at [Stacey.magee@stpsb.org](mailto:Stacey.magee@stpsb.org).

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## SouthEast Area Teachers of Mathematics (SEATM)

SEATM recently named **Chelsey Enxing**, a teacher at Honey Island Elementary School in Slidell, as the recipient of the SEATM Carol Meyer Mathematics Grant. Chelsey was awarded \$500 for her project, "Math: The Common Core Way."

SEATM plans to have several events this school year to help teachers implement the new Common Core standards into the curriculum.

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[Return to Table of Contents](#)

# LA DEPARTMENT OF EDUCATION UPDATES

## Common Core in Louisiana

Mandy Boudwin  
Mathematics Program Coordinator

### New Math iLEAP and LEAP Practice Tests Released

New [math practice tests](#) for grades 3-8 are now posted on the LDOE website. For each test, there is also an analysis document indicating the CCSS alignment and other information for each item.

### New PARCC Sample Items Released

PARCC released additional [sample test items](#) so that every tested grade level (Grades 3 through High School) has sample items. Click on the link above to use the sample items when planning your instruction throughout the year and in understanding the expectations required of students in order to demonstrate mastery of the standards.

### Sample Unit Plans Released in Teacher Toolbox

To support your planning, the LDE has released [sample unit plans](#) for Unit 1 at each grade level, Kindergarten through Algebra II. The sample unit plans, which were created and reviewed by Louisiana teachers, build out the first unit in the [year-long scope and sequence documents](#).

Use these samples in your classroom and to help you plan additional units throughout the year. If you have any feedback on the plans, or suggestions for additional resources, please contact us by e-mailing [ClassroomSupportToolbox@la.gov](mailto:ClassroomSupportToolbox@la.gov).

Each sample unit plan includes:

- A sample end-of-unit assessment and an assessment task with an exemplar response
- A rigorous and challenging culminating task (Application Task)
- Sequenced and scaffolded objectives, concepts, and skills
- Sample formative tasks to help determine student progress toward mastery of the concepts in the unit

Also included in the Unit Assessment and Planning Resources section of the toolbox is a list of [math planning resources from other states and organizations](#).

### Collaborate with Other Teachers Across Louisiana

Teachers across the state are collaborating via Twitter and Edmodo. They are sharing teacher-created resources, strategies, strengths, struggles, suggestions, and much more. You can be a part of this collaboration as well! Visit the [Louisiana Teacher Leaders](#) website for more information about how to join Edmodo so you can join the conversation with other #TeacherLeaders.

## The Louisiana Math Science Partnership Program

The 2013-14 Math Science Partnership Program cycle is off to an exciting start. Sixteen math projects are providing training focused on the CCSSM. Nine of the projects are targeting eighth grade mathematics teachers and seven projects are serving third and fourth grade teachers of mathematics. Project partnerships bring together school districts and university departments of mathematics. Participation is open to teachers from partner districts and teachers from non-public schools.



Teachers will continue their efforts to improve their content knowledge and develop additional teaching strategies by meeting during the academic year. The extension of the MSP projects into the school year provides the participants with ongoing opportunities to collaborate around efforts to improve the teaching and learning of math.

Representatives of several of the Louisiana projects participated in the US Department of Education's MSP Conference in September. This annual event allows project directors from Louisiana to hear about changes in the program guidelines and share success stories with project leadership from other states.



## Math Design Collaborative in Louisiana

Jean May-Brett  
MSP and MDC Coordinator

As the state enters the third and final year of the Bill and Melinda Gates Foundation Integration Grant and teachers take on the challenges associated with implementing the CCSSM, there has been an amazing expansion of the Math Design Collaborative (MDC) into more districts to inform a greater number of teachers of this work.

A surge of activity in preparation for academic year 2013-14 occurred this summer as part of the Louisiana MDC expansion. Louisiana teachers attended multi-day summer institutes in Arizona as well as East Baton Rouge, Jefferson, Morehouse, Sabine, and Tangipahoa parishes. Once a state with five Integration Grant districts, Louisiana now has MDC-trained math teachers and administrators in sixteen districts.

Partnerships have been the key to the success of the Louisiana MDC expansion. During a summer collaboration meeting with representatives of the Gates Foundation, participants received a wrist band with the theme *Power up our Partners* signifying the importance of partners. Some districts have made use of LA GEARUP sub-grants to provide MDC training for their teachers. In others, Math Science Partnership allocations were used to increase the number of teachers participating in MDC training. Additionally, MDC is being implemented in some SRCL grant schools to provide a math component for instruction with the goal of triggering interest and further growth of the use of MDC resources.

MDC teachers are collaborating to implement Formative Assessment Lessons (FALs) and tasks from the Math Assessment Project website <http://map.mathshell.org>. Problem solving and concept development lessons for middle and high school courses are posted at this site and are freely available to **all** teachers. Three levels of tasks - Novice, Apprentice and Expert - are posted. There are now approximately 40 high school and 30 middle school tasks available.

Find some time to visit the MAP site and explore the extensive collection of materials currently available. More FALs and tasks will be posted during the year. Take time to view the pictures on the next page! You may see friends and colleagues. Ask them about MDC!



## Snapshots from MDC Trainings around the State



***Top Row:*** East Baton Rouge Parish; ***Second Row:*** Tangipahoa Parish, Baton Rouge Parish, Jefferson Parish; ***Third Row:*** Morehouse Parish, Bossier Parish Administrators; ***Fourth Row:*** Jefferson Parish

[Return to Table of Contents](#)

# Teachers' Technology Corner

## Free Apps Recommended by a Teacher

Fifth-grade teacher Monica Burns discusses how she uses the FREE apps below to incorporate the Standards for Mathematical Practice at <http://appitric.com/index.php/webcasts/monica-burns-teaching-common-core-math-with-ipads>. While Ms. Burns is an elementary teacher, many of the apps are applicable to all grades.

Each app listed below is hyperlinked to its iTunes preview.

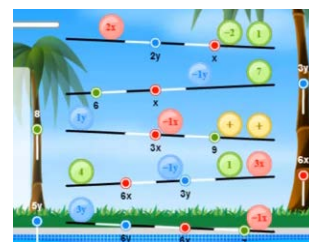
- [Dropbox](#)
- [Get Primes](#)
- [Algebrator](#)
- [MyScript Calculator](#)
- [Sushi Monster](#)
- [Oh No Fractions](#)
- [Long Division Touch](#)
- [Telling Time](#)
- [Graphs by Tap to Learn](#)
- [ScreenChomp](#)
- [Educreations](#)
- [Doceri](#)
- [Math Terms Glossary](#)
- [Whiteboard Lite](#)
- [Khan Academy](#)
- [Geometry Pad](#)
- [Grid Drawing Lite](#)
- [Tangrams](#)
- [Protractor](#)
- [Reading the Ruler](#)
- [Geoboard](#)
- [Number Pieces](#)
- [Timer+](#)

## NCTM Core Tools for High School Mathematics

NCTM's Core Math Tools is a **free**, downloadable suite of interactive software tools for algebra and functions, geometry and trigonometry, and statistics and probability. **There are three sets of apps (Algebra, Geometry, and Statistics) which are part of the Core Math Tools suite.** Core Math Tools can be saved on a computer or USB drive, making it possible to use without Internet access. Files can be saved and reloaded by students and teachers. The tools' portability allows easy access for students, teachers and parents outside the classroom. The site also provides lessons and data sets as well as instructions on how to use the software. Links to the tools are posted at <http://www.nctm.org/resources/content.aspx?id=32702>.

## Featured Calculation Nation Game: Ker-Splash!

Dive into math fun as you grab tokens, combine like terms, and use your algebra skills! Increase the coefficients to maximize your score when the secret values of the variables are revealed. Sign up for a **free** account and play [Ker-Splash](#) on Calculation Nation® today!



## LPB LearningMedia

Explore **LPB LearningMedia**, a **free** digital media library available to everyone. PBS has collected more than 30,000 high-quality assets to support your classroom teaching. Now is a great time to register at <http://www.lpb.org/education> and review the special weekly themes to use with your students.

If you are not a member of LPB LearningMedia, now is a great time to register—at no cost—at <http://www.lpb.org/education>.

[Return to Table of Contents](#)



# Math Resources

## SpaceMath@NASA – New Math Guides

Four new math guides have been released by [SpaceMath@NASA](#):

- [Exploring the Lunar Surface \(Grades 3-5\)](#): This introduction of the lunar surface is comprised of 10 problems on basic scale and proportion.
- [Exploring Planetary Moons \(Grades 3-6\)](#): This collection of 22 problems includes work with proportional relationships, fractions, and temperature changes.
- [Exploring Stars in the Milky Way \(Grades 6-8\)](#): These 13 problems focus on basic counting, tallying, and grouping techniques, as well as working with simple proportions.
- [Exploring the Milky Way \(Grades 6-8\)](#): This collection of 30 problems introduces students to mapping the shapes of the Milky Way, and how to identify different kinds of galaxies in our universe.

## LATM EXECUTIVE COUNCIL

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<b>Lon Smith</b> Web Site Editor <a href="mailto:proflon5@gmail.com">proflon5@gmail.com</a>	<b>Cat McKay</b> ACTM Representative <a href="mailto:cmckay7930@earthlink.com">cmckay7930@earthlink.com</a>	<b>Trisha Fos</b> BRACATM Representative • <a href="mailto:tfos1@lsu.edu">tfos1@lsu.edu</a>
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[Return to Table of Contents](#)