



PCTM

59th Annual Conference

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*Are You Ready for the
Digital Math World?*

November 10-12, 2010

Radisson Penn Harris
Conference Center
Camp Hill, PA

Sponsoring Organizations

Pennsylvania Council of Teachers of Mathematics (PCTM)
Central Pennsylvania Mathematics Association (CPMA)
PA Association of Mathematics Teacher Educators (PAMTE)
PA Council of Supervisors of Mathematics (PCSM)



**Pennsylvania Council of Teachers of Mathematics
59th Annual Conference**

Welcome to the 59th Annual Conference of the Pennsylvania Council of Teachers of Mathematics! We are excited to be meeting at the Radisson Penn Harris Conference Center at Camp Hill, PA, so close to the capital of the Commonwealth of Pennsylvania!

The Conference Committee has been working diligently to present a rich program packed with over 100 sessions on current and relevant topics of interests to teachers of mathematics from Pre–K to college. We have six Spotlight Speakers who will share their insights, experiences, and expertise on topics ranging from engaging all students to issues of transitioning from high school to college. In addition, you will find Spotlight Sessions with current issues on standards and Keystone Exams. To top it off, there will be two special programs: the Pre–Service and Early Career Teacher Programs on Thursday and Friday, respectively. They are geared to energize, invigorate, and celebrate pre–service and early career mathematics teachers.

Many thanks to the Conference Committee, led by General Co–Chairs Tim Seiber and Mike Long, who have worked tirelessly with the Program Committee (Dave Kennedy, Doug Ensley, and Tom Evitts) and all other committee chairs and members – Ray Shearer and Steve Williams on Exhibits, Jane Dalton and Sue Davis on Food/Meals, Jane Wilburne on Publicity, Deb McKee on Signs, and John Lindhom, Debbie Gochenaur, Terry Baylor, and Barb Baylor on Registration have all collaborated to make this conference a successful one. Most importantly, thanks to all speakers who will share their informative sessions with us!

The PCTM leadership and your local organizers hope you enjoy this exciting conference, and please explore the Capitol, Hershey, and Gettysburg while you are here!

– Pauline Chow, President of PCTM

Note: In this program we express the levels of presentations using the following shorthand:

Gr. 4-6	means	“Grades 4 to 6 “(for example)
Coll	means	“College”
T.Ed	means	“Teacher Education”
Gen	means	“General Interest”

Spotlight Speakers and Sessions

Thursday 9:15-10:30

Carol Malloy, University of North Carolina - Chapel Hill

Framing Questions to Engage All Students in Making Sense of Mathematics

Thursday 11:00-12:15

David Bressoud, Macalester College

Issues of the Transition from High School to College Mathematics

Thursday 12:45-2:00

Jim Bohan, Lancaster-Lebanon IU

Common Core Standards vs. PA Standards – What is the Impact?

Thursday 2:30-3:45

Irina Lyublinskaya, CUNY College of Staten Island

Teaching Geometry Proofs to the Digital Generation

Thursday 6:30pm (PCTM Banquet Speaker)

Padhu Seshaiyer, George Mason University

Calculations, Arithmetic and Technology Through the Ages

Friday 8:00-11:00

Charlie Wayne & Rich Maraschiello, PDE

Spotlight Sessions on the Keystone Exams

Friday 9:15-10:15

Luis Melara, Shippensburg University

Mathematics, Calculators and Computing

Friday 10:45-12:00

Sandy Atkins, Creating AHAs, LLC

An Ounce of Prevention is Worth a Pound of Intervention

Friday 1:15-2:30

Ron Larson, Penn State - Erie and Larson Texts, Inc.

Problem Solving Using Unit Analysis

7:00-9:00 PSCM Breakfast Veranda

8:00-8:45 Preservice Teacher Meeting Governor's B

#1. 8:00-9:00 Session: Gr. K-12 Keystone A

PA Statistics Poster Competition: Fun and Learning for Your K-12 Students
Peter Skoner, Saint Francis University

Have your class participate in this fun and interesting learning experience. Students from grades K-12 can work in groups or individually to develop and submit displays that summarize data, provide different points of view, and answer some questions about the data, from any discipline, with the chance to win prizes. Examples and instructions will be shown at this session.

#2. 8:00-9:00 Session: Gr. 9-12, Gen Keystone B

Classical Greek Mathematics in Today's Classroom
Robert McGee, Cabrini College, with Carol Serotta, Cabrini College and Kathleen Acker, American University

Selections from the works of classical Greek mathematicians, including Euclid and Archimedes, will highlight real world applications as well as the foundations of today's mathematics.

#3. 8:00-9:00 Session: Gr. K-5 Keystone C

Making Connections: Integrating Teaching and Learning Tools—Anywhere and Anytime

Rob Magliano, MIND Research Institute

Come see how MIND's new Integrated Instructional web-delivered system combines spatial-temporal math content from MIND's proven, award-winning ST Math® software with assessment, improved student reporting, and rich new features and functions for teachers and students.

#4. 8:00-9:00 Workshop: Gr. 6-12 Governor's A

Tessellations; Try Your Hand!
Janet Adams, Penn State University, Worthington Scranton

Creating Escher drawings is a fun way to strengthen students' spatial understanding while introducing the concepts of midpoint, reflection, slide, and rotation.

#5. 8:00-9:00 Workshop: Gr. 6-12 Commonwealth

Algebra: Tour of the Internet
Jason Turka, Bethel Park School District

An in-depth exploration of the internet resources available to Algebra teachers and students.

#6. 8:00-9:00

Workshop: Gr. 3-8

Senate

Demystifying the Learning of Algebra

Mary Geschel, Borenson and Associates, Inc.

A visual and kinesthetic approach to solving linear algebraic problems. Makes algebra for young students child's play. Learn how to use this method to solve verbal problems.

#7. 8:00-9:00

Workshop: Gr. 3-5, T.Ed

Susquehanna

Learning Mathematics with Pattern Blocks

Celine Przydzial, Kutztown University

Participants will use pattern blocks to investigate number concepts, problem-solving strategies, fraction representations, equivalent fractions, angle measure, symmetry, perimeter, and area.

#8. 8:00-9:00

Session: Gr. 6-12

State

Delayed Homework: What it IS and is Not!

Marian Elaine Avery, Great Valley High School

Delaying homework assignment until after the second day of instruction decreases student anxiety and increases student understanding and success. Unit outline examples and action research will be shared.

#9. 9:15 – 10:30

Spotlight Speaker

Keystone D&E

Framing Questions to Engage All Students in Making Sense of Mathematics

Carol Malloy, University of North Carolina – Chapel Hill (Ret)

Guided by NCTM's PSSM and Focal Points documents, and student work, this session will investigate how the framing of questions results in students with varied mathematical knowledge being motivated to gain deep understanding of mathematical concepts when they are asked to make sense of the mathematics they are learning.

Carol E. Malloy is proud to have spent 20 years as a teacher of mathematics in public school districts across the United States, starting in Harrisburg, Pennsylvania. She has recently retired from the University of North Carolina at Chapel Hill where she taught courses in secondary mathematics methods, geometry for middle and elementary pre-service teaching students, and the professional seminar for Ph.D. students. Carol's major research interests are mathematics learning, the influence of culture on the cognitive development of African American students as it relates to mathematics learning, and teacher/student interactions that lead to achievement and understanding in mathematics. She was elected and served as a member of the National Council of Teachers of Mathematics (NCTM) Board of Directors from 1998–2002, and was a member of the NCTM Standards 2000 writing team. Presently Carol is a Lead Author for the McGraw-Hill K-12 Mathematics Program.



9:15-12:00

PCSM Board Meeting

Hotel restaurant

#10. 9:15-10:15

Session: Gr. 6-8

State

*Jobs, Family, Budgets and Taxes!***Lance Bryant, Shippensburg University**

A financial activity conducted with 7th grade students will be presented. One goal is to provide websites and worksheets so that this activity can be adapted for further use.

#11. 9:15-10:15

Session: Gr. 6-12

Keystone C

*Pearson/Prentice Hall: Mathematics Digital Trailblazers***Jim Kyack, Pearson- Prentice Hall**

Visit with Prentice Hall and explore our unique and ground-breaking digital math assets for grades 6-12. Learn how we are ahead of the digital curve with intelligent and user-friendly technology.

#12. 9:15-10:15

Session: Gr. 6-8

Keystone A

*Mathtutor: A Free Website Where Middle-School Students Learn Math***Jessica Kalka, Carnegie Mellon University, with Brett Leber and Martin van Velsen, Carnegie Mellon University**

Learn about Mathtutor, a new website developed at Carnegie Mellon University, where students solve challenging middle-school math problems and study interactive worked examples. Intelligent software tutors give step-by-step help and feedback, as needed.

#13. 9:15-10:15

Session: Gr. K-8

Keystone B

*SMI: Your Universal Screening and Intervention Placement Tool***Lee Finkelstein, Scholastic, Inc., with Anthony Villani, Joseph Belotti, and June Clark, Scholastic, Inc.**

Scholastic Math Inventory is a quick, computer-adaptive math assessment for grades 2-8 that provides immediate data for universal screening, progress monitoring, and instructional decision-making.

#14. 9:15-10:15

Session: Gr. 6-12

Governor's B

*L.E.A.R.N.- 5 Principles to Transform Your Math Classroom***Joseph Irby, BestQuest Teaching Systems**

Brainstorming, Roleplaying, and Hands-on Activities will be used to present effective ways of reaching the 21st Century Digital Natives. Special emphasis will be given to using the new digital tools that have recently become available to all classrooms via the PA IUNET.

- #15. 9:15-10:30** **Workshop: Gen** **Governor's A**
Survival is Good: Safety Preparedness for Educators
Donald Smith, Emergency Planning and Response
Coordinator, PA - Center for Safe Schools
This program will cover basic skills and knowledge that all educators must know and be capable of enacting to stay safe in the educational environment.
- #16. 9:15-10:30** **Workshop: Gr. 9-12, T.Ed.** **Commonwealth**
Transforming Quadrilaterals and Their Changing Diagonals
Charlene Keen, Dauphin County Technical School
Participants will make two models that demonstrate the changing relationships occurring when quadrilaterals transform from parallelogram to rectangle or rhombus to square. Discuss multiple teaching strategies, diagonal lab, and vocational applications.
- #17. 9:15-10:30** **Workshop: Gr. 6-12** **Senate**
Using Formative Assessment to Check Student Understanding
Marian Elaine Avery, Great Valley High School
Utilizing formative assessment daily gives quick and immediate feedback on the level of student understanding and mastery. Interactive examples, lists of formative assessments used, and book references will be given.
- #18. 9:15-10:30** **Workshop: Gr. 3-5** **Susquehanna**
What Were They Thinking? Learning to “Read” Your Students’ Minds
Laura Skjold, Neufeld Learning Systems, Inc.
Come explore pedagogical strategies for “reading” students’ minds while developing a deep understanding of key mathematical concepts using the wonders of technology. Complementary CDs provided for all session attendees.
- #19. 10:30-11:30** **Session: Gen** **Governor's B**
Beads, Bones and Rods: Let's do some counting
Padhu Seshaiyer, George Mason University
In this session, the participants will engage in a series of activities that demonstrate various methods of calculations. In particular, the participants will learn to build an Abacus, create Napier's bones and work with calculating rods to perform some interesting calculations. The activities are designed to provide an opportunity to discuss culture, geography, history, and mathematics.
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#20. 10:30-11:30

Session: Gen

Keystone A

*Refining the Craft of Coaching.***Kelly Kessler, West York Area School District**

You've established relationships, built trust, and now you're ready to stretch your coaching skills. Emphasis will be on moving teachers from good to great through collaborative communication and feedback.

#21. 10:30-11:30

Session: Gr. K-8, Gen

Keystone B

*The Math Coach's Toolbox***Lindsey Smith, Propel East Charter School**

A session for math coaches. During this session a collection of coaching tools will be shared including observation tools, lesson templates, professional development resources, and websites. Feel free to bring your own tools to share.

#22. 10:30-11:30

Session: Gr. 6-8

Keystone C

*Going Deeper in the Middle School Classroom***Larry Dorf, Big Ideas Learning, LLC**

Learn methods for teaching middle school math in a focused and in-depth manner. Stimulating questioning and engaging activities create a classroom alive with enthusiasm for learning.

#23. 10:30-11:30

Session: Grades K-5

State

*THINK MATH! Let Their Minds Wonder***Dan Sidelnick, School Specialty, Inc.**

THINK MATH! is the nation's newest National Science Foundation math program developed by the Educational Development Center (EDC). The K-5 workshop will focus on practices and activities that connect problem solving, skill building and conceptual development into one balanced program. Participants will receive hands-on activities and materials to take back their classrooms.

Minute Math #1: Amy plays Zane in a game with twelve rounds. In each round, the winner scores 5 points and the loser scores 3 points. At the end of the game, Zane's total score is 44 points. How many rounds did Amy win?

Answer on page 28.

#24. 11:00 – 12:15

Spotlight Speaker

Keystone D&E

Issues of the Transition from High School to College Mathematics

David Bressoud, Macalester College

High school students are taking more and higher level mathematics than ever, yet in our colleges, fewer students are taking and succeeding in calculus. This talk will present what we know about the transition and invite general discussion.

David Bressoud is DeWitt Wallace Professor of Mathematics at Macalester College and President of the Mathematical Association of America (MAA). He served in the Peace Corps in Antigua, West Indies, earned his doctorate at Temple University and then taught at Penn State for 17 years. He has held visiting positions at the Institute for Advanced Study, the University of Wisconsin-Madison, the University of Minnesota, Université Louis Pasteur (Strasbourg, France), and the State College Area High School. David has received the MAA Distinguished Teaching Award (Allegheny Mountain Section) and the MAA Beckenbach Book Award for Proofs and Confirmations. His other books include Factorization and Primality Testing; Second Year Calculus from Celestial Mechanics to Special Relativity; A Radical Approach to Real Analysis (now in 2nd edition); A Radical Approach to Lebesgue’s Theory of Integration; and, with Stan Wagon, A Course in Computational Number Theory. He chaired the AP Calculus Development Committee from 2002 to 2005.



#25. 11:00 -12:15

Workshop: Gr. 3-8, Gen

Governor’s A

How much is “MORE”? Engaging Students in Proportional Reasoning

Bill Tobin, Muhlenberg School District

Proportionality is one of the “big ideas” in the upper elementary and middle school mathematics curriculum. This hands-on workshop will explore a range of problems and activities aimed at helping students think proportionally.

#26. 11:00-12:15

Workshop: Gr. K-2

Veranda

Real World Geometry for Primary-Aged Children

Janice Minetola, Shippensburg University, with Lauren Nelson and Konnie Serr, Shippensburg University

Participants in this hands-on workshop will experience geometry activities that bring the national standards to life and make real world connections for primary-aged children.

Minute Math #2: How many three-digit numbers are divisible by 13?

Answer on page 28.

#27. 11:00-12:15

Workshop: Gr. 9-12, T.Ed

Commonwealth

*Making Sense of Triangle Congruence: Six Classroom Models***Charlene Keen, Dauphin County Technical School**

Construct classroom models for triangle congruence theorems, including ambiguous SSA. DCTS students helped produce a kit of dowels, angles, and connectors. Participants will complete models with hot glue and discuss their use.

#28. 11:00-12:15

Workshop: Gr. 3-8

Senate

*Teaching Geometry Using My Favorite Manipulatives***Winnie J. Peterson, Kutztown University**

Ideas to engage your students in learning geometry using Polydrons, AngLegs, Geoboards and other manipulatives will be presented.

#29. 11:00-12:15

Workshop: Gr. 6-8

Susquehanna

*What Were They Thinking? Learning to "Read" Your Students' Minds***Laura Skjold, Neufeld Learning Systems, Inc.**

Come explore pedagogical strategies for "reading" students' minds while developing a deep understanding of key mathematical concepts using the wonders of technology. Complementary CDs provided for all session attendees.

#30. 11:45-12:45

Session: Gr. K-5

Keystone A

*More to Discourse Than Meets the Ears***Lynn Columba, Lehigh University**

Shared storybook reading offers a promising medium for increasing attention to mathematical concepts using "math talk." Children's literature fits well with natural routines, provides an engaging activity, links with early literacy benefits and increases awareness of math in everyday life.

#31. 11:45-12:45

Session: Gr. 6-12

Keystone B

*The Probability of The Price is Right***Mike Long, Shippensburg University**

If you were called down on The Price is Right, what game would you hope to play? Come find out in this session, which is a follow up to the Wednesday evening event.

Minute Math #3: The base of an isosceles triangle is 24 and its area is 60. What is the length of one of the congruent sides?

Answer on page 28.

#32. 11:45-12:45

Session: Gr. K-5

Keystone C

Celebrate International Math Day!

Cathie Cooper, Concord Elementary, Garnet Valley School District

Math games from around the world will be introduced and then played by session participants. Ideas for coordinating an International Math Day celebration at your school will also be shared.

#33. 11:45-12:45

Session: Gr. 6-12

State

Closing the Math Achievement Gap in Pennsylvania

Jeff Hildebrandt, I Can Learn®, with Diana McCauley, I Can Learn®

I Can Learn® is a proven program recognized by the U.S. Department of Education What Works Clearinghouse for its positive effects with struggling math learners getting through the “algebra gateway.”

#34. 12:45–2:00

Spotlight Session

Keystone D&E

Common Core Standards vs. PA Standards – What is the Impact?

Jim Bohan, Lancaster-Lebanon IU

This presentation will focus on the concept and detail of the Common Core Standards for Mathematics. Their alignment with the PA Standards and their impact on Standards and assessment will be discussed

#35. 12:45-2:00

Workshop: Gr. K-2

Governor’s A

Developing Primary Problem Solving

Mary Petetti Doherty, Council Rock School District, with Gina Pflanz, Council Rock School District

Participants will explore developing an understanding of number sense through a conceptual approach to problem solving. Teaching big ideas using authentic problems and games will be discussed.

#36. 12:45-2:00

Workshop: Gr. 3-8

Veranda

Expanding Problem Solving to Algebraic Thinking

Judy Werner, Slippery Rock University

Participants will solve problems and investigate how to expand the problem-solving activity to algebraic thinking. Participants are encouraged to bring a problem from their own math textbooks.

#37. 12:45-2:00

Workshop: Gr. 3-5

Commonwealth

*Formative Assessment: Build your Tool Kit!***Kristy Garvin, Northwest TriCounty Intermediate Unit 5**

Formative assessment provides “real time” data and allows teachers to adjust their instructional practices as they are teaching. Your tool kit of strategies can be used when you return to your classroom.

#38. 12:45-2:00

Workshop: Coll, Gen

Senate

*Number Theory: Its History and Open Problems***Jay L. Schiffman, Rowan University**

Number theory engages diverse audiences. Famous open problems, including Goldbach's Conjecture and the Collatz Problem, together with luminaries such as Euler, Euclid, Fibonacci, and Mersenne, will serve as our focus.

#39. 12:45-2:00

Workshop: Gr. 9-12

Susquehanna

*What Were They Thinking? Learning to “Read” Your Students’ Minds***Laura Skjold, Neufeld Learning Systems, Inc.**

Come explore pedagogical strategies for “reading” students’ minds while developing a deep understanding of key mathematical concepts using the wonders of technology. Complementary CDs provided for all session attendees.

#40. 1:00-2:00

Session: Gr. 3-12

Keystone A

*Overcoming Learning Deficits with High Impact Techniques***Kelly Kozain, Northern York High School, with Debbie Gochenaur, Shippensburg University**

Finding high impact classroom techniques to enable disabilities students to succeed, with little additional prep time, is difficult. Specific techniques, with targeted learning deficits that each addresses, will be discussed.

#41. 1:00-2:00

Session: Gr. 6-12

Keystone B

*Two Rich Problems: A Whole Lot of Math***Tony Blair, Shippensburg University, with Dan White, Shippensburg University**

In this presentation, we take two rich problems apart, mathematically: How many licks to the center of a Tootsie Pop and How many figurate numbers could Pythagoras have used?

Minute Math #4: What is the tens digit in the sum $7! + 8! + 9! + \dots + 2006!$?

Answer on page 28.

#42. 1:00-2:00 **Session: Gr. 9-12** **Keystone C**

Software Solutions to Enhance Classroom Learning

Doyt Jones, Consultant

Texas Instruments software solutions for the interactive smartboard for the TI-84 and TI-Nspire will be demonstrated in an Algebra environment. Selected activities from the Keystone Exams will be highlighted. All participants will receive a full license of the Nspire TE software.

#43. 1:00-2:00 **Session: Coll, Gen** **State**

Dilemma, Conundrum or Breakthrough? Adult Students Talk College Mathematics

Paul Munyofu, Elizabethtown College

Participants will examine and discuss adult students' performance in an accelerated college course in statistics and probability. This will include the students' attitude towards such accelerated courses.

2:00-4:00 PCTM Executive Board Meeting **Perkins restaurant**

#44. 2:15-3:15 **Session: Gr. K-3** **Keystone A**

Stories that Count: Children's Literature in Math Class

MW Penn

Good stories capture attention, add understanding, and connect mathematics to experiences or imagination. Explore children's literature with the award winning author of poetry and picture books. Lesson plans included.

#45. 2:15-3:15 **Session: Gr. 6-8, Gen** **Keystone B**

Chronicles of a Digital Math Classroom

**Mike Evans, Propel Schools-Montour, with Holly Pope,
Propel Schools-Montour**

A teacher and his coach reflect on their first year experiences with creating a digital math classroom, including implementation, its impact on student learning, and classroom examples of projects/lessons.

#46. 2:15-3:15 **Session: Gen** **Keystone C**

Foldables : Interactive Graphic Organizers

Cindy Murphy, Seneca Highlands IU9

Come and develop three-dimensional educational manipulatives, also called graphic organizers, that quickly organize, display and arrange data, making it easier for students to grasp concepts, theories, processes, facts, and ideas, and sequence events as outlined in the content standards.

#47. 2:15-3:15

Session: Gen

Governor's B

*Elementary Math Specialists: An Idea for Pennsylvania***Jane M. Wilburne, Penn State Harrisburg, with Judy Werner, Slippery Rock University**

This session will present data collected in states that recognize the mathematics specialist designation. Presentation of work that has been done regarding development of the mathematics specialist designation in PA.

#48. 2:15-3:15

Session: Gr. 6-12

State

*Cooperating Teachers Round Table Discussion***Janet A. White, Millersville University**

After hearing two cooperating teachers talk about their experiences with student teachers, attendees will break into groups to share personally successful techniques as well as challenges. For existing cooperating teachers.

#49. 2:30 – 3:45

Spotlight Speaker

Keystone D&E

*Teaching Geometry Proofs to the Digital Generation***Irina Lyublinskaya, CUNY College of Staten Island**

Teaching reasoning and proofs in high school geometry is one of the challenging tasks that we face today. Can technology help us with this task? In this presentation we will look at a set of problems that use symbolic geometry software that can focus on the development of students' proofs skills.

Irina Lyublinskaya holds degrees in theoretical and mathematical physics from the Leningrad State University. She has taught at the high school and university levels for over 20 years, currently serving on the faculty at the CUNY College of Staten Island. In recent years she has done research and developed curriculum in the area of integrating technology into mathematics and science education, while dedicating herself to the professional development of pre-service and in-service teachers of mathematics and science. Irina received a Radioshack/Tandy Prize for Teaching Excellence in Mathematics, Science, and Computer Science; an NSTA Distinguished Science Teaching Award and citation; an Education's Unsung Heroes Award for innovation in the classroom; and the NSTA Vernier Technology Award. She has published multiple articles and 12 books about the teaching of mathematics and science.



Minute Math #5: In a collection of red, blue, and green marbles, there are 25% more red marbles than blue marbles, and there are 60% more green marbles than red marbles. Suppose there are r red marbles. What is the total number of marbles in the collection (in terms of r)?

Answer on page 28.

#50. 2:30-3:45

Workshop: Gr. 3-8

Veranda

*Geometry Activities to Rev Up Math Learning***Janie Zimmer, Research-Based Education, with Arlene Dowshen, Widener University**

Participate in exciting geometry activities that model concepts and dynamically involve students in activities to learn and understand the basic geometry concepts and the relationships among geometric figures and formulas.

#51. 2:30-3:45

Workshop: Gr. 3-5

Commonwealth

*Modular Arithmetic: The Art of Remainders***Gina Pflanz, Council Rock School District, with Anna LaForgia, Council Rock School District**

Participants will explore modular arithmetic, the math of remainders, and the concepts of symmetry, reflections, rotations and translations to construct a geometric artwork. Participants will leave with a student guide.

#52. 2:30-3:45

Workshop: Gr. 3-8

Senate

*Writing + Math = Deeper Learning!***Lindsey Sides, Bucks County Intermediate Unit #22**

Many of us remember writing in English or Social Studies, but not in Math. Today, educators are realizing that writing is more than just “showing your work” – it’s a way to deepen students’ understanding and a tool for gaining new perspectives. This session will engage participants in strategies for incorporating writing in mathematics.

#53. 2:30-3:45

Workshop: Gr. 6-12

Susquehanna

*Assessing and Advancing Student Learning***Matt Freedman, Carnegie Learning**

Formative assessment is an integral part of teaching. In this workshop teachers will engage with rich tasks, examine actual student work, and design questions to assess and advance student learning. Discussion will center around best practices for questioning as formative assessment and ways to move student learning.

#54. 3:30-4:30

Session: T.Ed, Gen

Keystone A

*HOME PLaTe – An University/Public School Partnership***Larry Feldman, Indiana University of Pennsylvania, with John Uccellini and Karen Bungo, Indiana Area School District, and Francisco Alarcon, Indiana University of Pennsylvania**

Elementary alternative algorithms and the new Core Curriculum were used for a unique collaboration between IUP and the Indiana Area School District with courses tailored to meet teachers’ unique needs.

#55. 3:30-4:30

Session: Gen

Keystone B

*Reducing Math Anxiety in the Classroom***Brian Evans, Pace University**

This presentation will address ways to reduce math anxiety in the classroom. An article on math anxiety and tips for reducing it will be actively discussed with participants.

#56. 3:30-4:30

Session: Gen

Keystone C

*Math 2.0***Cindy Murphy, Seneca Highlands IU9**

Explore interactive, fun (and free!) math websites, get ideas for using class wikis, and discover different ways for your teachers and students to collaborate! Bring your laptop!

#57. 3:30-4:30

Session: Gr. 6-12

State

*Changing the World One Student Teacher at a Time***Debbie Gochenaur, Shippensburg University**

Training the next generation of teachers is an opportunity to share your life with a blossoming teacher. Come find out if being a cooperating teacher is in your future.

#58. 6:30 p.m.

PCTM Banquet Speaker

*Calculations, Arithmetic and Technology Through the Ages***Padhu Seshaiyer, George Mason University**

In this talk, the participants will have an opportunity to learn about manipulative tools, technology and arithmetic developed across the ages to enhance their understanding of problem solving in mathematics.

Dr. Padmanabhan Seshaiyer is a tenured Associate Professor of Mathematical Sciences and an affiliate faculty member of the Center for Mathematics Education at George Mason University. He currently directs COMPLETE (Center for Outreach in Mathematics Professional Learning and Educational Technology) at George Mason University which provides a collaborative network that brings together a consortium of school district leaders, K-12 teachers, GMU Faculty and students, national experts, non-profit organizations and business partners to promote excellence in mathematics teaching, learning and collaborative mentoring in Northern Virginia through innovative solution-oriented initiatives and technology integration. Over the last decade, Dr. Seshaiyer has actively initiated and directed several K-12 STEM based educational outreach and professional enrichment programs to foster the interest of students and teachers in mathematics and its applications that focus on 21st Century Skills including critical thinking, problem solving, communication, collaboration and creativity, careers, technology and innovation. In the last five years he has also been actively involved in providing intensive and high-quality K-12 teacher mathematics professional development to help enhance mathematics teaching while promoting student learning and productive disposition towards learning mathematics.



7:30-9:00 a.m. Early Career breakfast meeting Governor's A

#59. 8:00-9:00 Session: Gr. 3-5, Gen Keystone A

Using Rules of Arithmetic to Develop Algebraic Concepts

Timothy W. Young, Chartiers Valley High School, Retired

Demonstrate how basic arithmetic rules relate to advanced algebraic concepts involving fractions (rational expressions) and multiplying by special forms of one, develops amazing results.

#60. 8:00-9:00 Session: Gen Keystone B

Marvelous Math Mentors

Laurie DeMarco, York College of PA, with Jim Troutman, York College of PA

This session will provide an overview of a Peer Math Mentor program designed to pair struggling students with a peer mentor. You will learn about the program's success and have a special guest appearance from one of the "Marvelous Mentors" herself.

#61. 8:00-9:00 Session: Gen Keystone C

Web 2.0: Revolutionizing Your Math Classroom, One APP at a Time

Darren DiCello, Cumberland Valley School District, with Amy Lena and David Echelmeier. Cumberland Valley School District

Explore several free and easy-to-use Web 2.0 applications that can have an immediate impact in your math classroom.

#62. 8:00-9:00 Workshop: Gr. 6-8 Keystone E

Writing and Solving Equations

Lisa Thiry, Twin Valley Middle School, with Astrida Lizins, Twin Valley Middle School

Participants will work on solving word problems using the Guess and Check method. From the patterns in the Guess and Check tables, equations will be written. Then solving an equation will be investigated using manipulatives.

Minute Math #6: In a triangle with integer side lengths, one side is three times as long as a second side and the length of the third side is 15. What is the greatest possible perimeter of this triangle?

Answer on page 28.

#63. 8:00-9:00

Workshop: Gr. 9-12

Veranda

*Mathematics Fluency: An Example from Geometry - Area and Volume***Marian Elaine Avery, Great Valley High School**

Examine hands-on activities, using multiple representations in instruction that demonstrate the instructional methods and strategies that enable students to understand concepts, rather than just use them, thus increasing student achievement.

#64. 8:00-9:00

Workshop: Gr. K-2

Commonwealth

*Math Takes Center Stage***Charyl Kerns Hills, Council Rock School District**

Connect literature, standards, and drama to create a command math performance. Experience teacher created math theater activities and leave with scripts, web tools, and websites to produce a math production.

#65. 8:00-9:00

Session: Gr. 6-12

Senate

*Activities that Increase Student Engagement***Kelly Brent, Carlisle Area School District**

Getting the entire class actively involved in learning Algebra, Trigonometry and Pre-calculus is always a challenge. These whole group matching activities and jigsaw grouping strategies have helped me get everyone engaged!

#66. 8:00-9:00

Workshop: Gr. 6-12, T.Ed

Susquehanna

*Assessing Higher Order Thinking on Classroom Tests***Jane M. Wilburne, Penn State Harrisburg**

Do your classroom tests require students to think? Learn techniques to create stimulating questions that will require students to apply, analyze, and synthesize!

#67. 8:00-9:00

Session: Gr. 9-12, Gen

State

*Model This!***Ben Galluzzo, Shippensburg University**

Exposing students to authentic real world problems is difficult. We'll address this concern by discussing math modeling contests as well as ideas for bringing math modeling into the classroom.

Minute Math #7: At a party, each man danced with exactly three women and each woman danced with exactly two men. Twelve men attended the party. How many women attended the party?

Answers on page 28.

#68. 8:15-9:00**Spotlight Session****Governor's B***The Latest About the Keystone Exam in Geometry***Rich Maraschiello and Charlie Wayne, Pennsylvania Department of Education**

Hear about the new Keystone Exam in Geometry, directly from the source! Charlie and Rich will present an "insider's view" from the Pennsylvania Department of Education.

#69. 9:15-10:00**Spotlight Session****Governor's B***The Latest About the Keystone Exam in Algebra I***Rich Maraschiello and Charlie Wayne, Pennsylvania Department of Education**

Hear about the new Keystone Exam in Algebra I, directly from the source! Charlie and Rich will present an "insider's view" from the Pennsylvania Department of Education.

#70. 9:15 – 10:15**Spotlight Speaker****Keystone D***Mathematics, Calculators and Computing***Luis Melara, Shippensburg University**

In scientific discovery, computing has become the third pillar along with theoretical analysis and experimentation. In this presentation, the speaker will highlight some important uses of technology to solve real world problems. In particular, he will focus on the use of the TI-83 calculator to show some of the difficulties encountered in the use of technology to solve mathematics problems.

Dr. Luis Melara obtained his undergraduate degree at U.C.L.A. in Applied Mathematics with a Specialization in Computing. He completed his Ph.D. in Computational and Applied Mathematics at Rice University. He is currently an Assistant Professor of Mathematics at Shippensburg University. He has been the Scholarship Co-Chair for the Tapia Conference, in Portland, Oregon. He is the Faculty Advisor for the Shippensburg University SIAM Student Chapter. SIAM is the Society for Industrial and Applied Mathematics, the largest applied mathematics organization in the United States. His area of research is in numerical optimization problems. His work has applications to Materials Sciences and Image Processing. Currently, he has been interested in mathematics applications to biology.



#71. 9:15-10:15

Session: T.Ed, Gen

Keystone A

*Preparing and Mentoring Beginning Teachers through Online Communities***Nina Girard, University of Pittsburgh-Johnstown**

The use of online support communities will be explored as a means to encourage beginning teachers to discuss, reflect upon, and incorporate pedagogical theory into practice in their math classrooms.

#72. 9:15-10:15

Session: Gr. 3-5

Keystone B

*Activities for Teaching Difficult Concepts***Ann Martin, Propel Charter Schools, with Talisha Thomas**

Money and time concepts are difficult for 3rd and 4th graders. Using a number line, the students will explore and develop strategies for learning these concepts.

#73. 9:15-10:15

Session: Gr. 6-12

Keystone C

*Kids and Money: Real World Math Applications***Julie Gilbert, PA Office of Financial Education, with Mary Rosenkrans, Director, Office of Financial Education**

Learn how to integrate personal finance concepts into math for real world, hands-on lessons through the Office of Financial Education and their Your Money's Best Friend website.

#74. 9:15-10:15

Session: Gen

State

*Alternative Education: Chicken Soup Won't Help Your Soul!***Michael Ladick, Allegheny Intermediate Unit: Shuman Center**

Do you teach the hardest and roughest students? Come learn new strategies and techniques about Alternative and Correctional Education in this fast paced and humorous seminar.

#75. 9:15-10:30

Workshop: Gr. 6-8

Keystone E

*Using Integer Tiles and Games for Integer Operations***Lisa Thiry, Twin Valley Middle School, with Astrida Lizins, Twin Valley Middle School**

Participants will be actively engaged in using integer tiles to explore and understand integers and integer operations. Games will be played to introduce and practice skills.

Minute Math #8: A line passes through $A(1,1)$ and $B(100,1000)$. How many other points with integer coefficients are on the line strictly between A and B ?

Answer on page 28.

#76. 9:15-10:30

Workshop: Gr. 9-12

Veranda

*Unit Origami and Three-Dimensional Models in Geometry***Marian Elaine Avery, Great Valley High School**

Using unit origami, participants will make, measure, and calculate surface area and volume of a triangular hexahedron and a cube using an original and classroom tested activity worksheet.

#77. 9:15-10:30

Workshop: Gr. 9-12, T.Ed

Commonwealth

*I Did Everything Right, My Graph Isn't There!***Mary Ann Matras, East Stroudsburg University**

Join us to explore some of the challenging aspects of teaching and learning with graphing calculators. Find out what to do when the graphing calculator leads your students astray.

#78. 9:15-10:30

Workshop: Gr. 9-12, T.Ed, Gen

Senate

*Cost-Effective Cyber Math Classroom [FREE or < \$50]***Phillip McCaffrey, Northside Urban Pathways Charter School, with Nathan M'Sadoques, Northside Urban Pathways**

Using free websites (www.edu20.org), educators can create complete classes, students never miss an assignment, there is no cost to the school, and alternative education has endless possibilities.

#79. 9:15-10:30

Workshop: Gr. 3-5

Susquehanna

*Math Out of (Con)text: Bringing Concepts to Life!***Anna M. LaForgia, Council Rock School District, with Julie Eastburn, Council Rock School District**

Turn traditional textbook problems into problem-based tasks accessible to ALL students without increasing your workload or budget. Create lessons for immediate use that develop students' math competence and understanding!

#80. 10:15-11:00

Spotlight Session

Governor's B

*The Latest About the Keystone Exam in Algebra II***Rich Maraschiello and Charlie Wayne, Pennsylvania Department of Education**

Hear about the new Keystone Exam in Algebra II, directly from the source! Charlie and Rich will present an "insider's view" from the Pennsylvania Department of Education.

#81. 10:45-11:45

Session: Gr. 6-12

Keystone A

*Teaching Algebra by Using Rules Developed in Arithmetic***Timothy W. Young, Chartiers Valley High School, Retired**

Demonstrate by using the rules learned in arithmetic to find the LCM and GCF, how students should solve problems involving rational expressions, and why multiplying by one is so important.

#82. 10:45-11:45

Session: Gr. 6-8

Keystone B

*Steel City Math: Learning Centers***Nicole Barto, Duquesne University**

Pre-service teacher presenter will share five learning centers and activities. The learning centers convey a Pittsburgh theme and are suitable for seventh and eighth grade mathematics.

#83. 10:45-11:45

Session: Gr. 6-12

Keystone C

*Mathematical Board Games***Kristin Luckenbill, Cumberland Valley High School, with Pam Todd**

Mathematical board games are a great final assessment. Students create unique games to review concepts learned during the school year. Come see student-made examples and create your own!

#84. 10:45-11:45

Session: Gr. 6-12

State

*Geometry and Math Poetry***John E. Hammett III, Saint Peter's College**

Participating teachers will explore a variety of math poems about geometry. Attendees will compose at least one poem, and discuss how to implement and assess such an instructional strategy.

Minute Math #9: In triangle ABC we have $AB = 25$, $BC = 39$, and $AC = 42$. Points D and E are on sides AB and AC , respectively, with $AD = 19$ and $AE = 14$. What is the ratio of the area of triangle ADE to the area of quadrilateral $BCED$?

Answers on page 28.

#85. 10:45-12:00

Spotlight Speaker

Keystone D

*An Ounce of Prevention is Worth a Pound of Intervention***Sandy Atkins, Creating AHAs, LLC**

Join us as we examine common mathematical misconceptions, pinpoint disconnects, and determine the possible causes so that we can fine-tune our instructional practices. Examples for closing conceptual gaps will be shared for immediate classroom use.

Sandy Atkins is the Executive Director of Creating AHAs, LLC. An inspiring speaker, Dr. Atkins is committed to finding those 'aha moments' when mathematical connections are made by teachers and students. Her sessions are thought-provoking and practical. An educator for over 25 years, Sandy has extensive experience at the elementary to university levels. She received her Ph.D. from Florida State University in 1992 and has since focused on turning research into practice. With particular interest in effective mathematical intervention, Sandy currently works with school districts across the United States in developing conceptual understandings, or creating ahas, for mathematics teachers and students in grades K-8.



#86. 11:15-12:30

Workshop: Gr. 6-12

Keystone E

*Using Algebra Tiles from Polynomials through Factoring***Astrida Lizins, Twin Valley Middle School, with Lisa Thiry, Twin Valley Middle School**

Participants will be actively engaged in using algebra tiles to explore and understand polynomials. Operations on polynomials will be explored all the way through factoring and completing the square. The important part is the transitioning from concrete (manipulative) to the abstract (paper and pencil).

#87. 11:15-12:30

Workshop: Gr. 9-12

Veranda

*These are a Few of My Favorite Lessons***Barbara MacDonald, North Allegheny, Retired**

Some algebra and geometry lessons that excite students towards understanding and developing concepts.

#88. 11:15-12:30

Workshop: Gr. 3-8

Commonwealth

*Breaking the Algebra Barrier – with Arithmetic!***Cheryl Jaffe, Northrop Grumman Electronic Systems**

Why do the digits of multiples of 9 always add to 9? The tools that help students understand the arithmetic algorithms are the same tools that prepare students for success in Algebra.

#89. 11:15-12:30 **Workshop: Gr. 9-12, Coll** **Senate**

Fascinating Function Facts

Ken Sullins, Mansfield University

We'll discuss some functions, using the graphing and the table features of the graphing calculator [also using the dynamic feature of the CASIO graphing calculator] to develop ideas and connections. Under consideration include linear functions, absolute value functions, quadratic (the power) functions, exponential functions, rational functions, and the conics. Bring a graphing calculator.

#90. 11:15-12:30 **Workshop: Gr. 6-12** **Susquehanna**

Bowling for Probability and Data Analysis Concepts

Terry W. Baylor, Shippensburg University, Retired

Use a bowling simulator to have fun with probability and data analysis. Analyze and compare the simulator outcomes to theoretical predictions and our own experience. Bring a graphing calculator.

12:00-1:00 **PCTM Business Luncheon** **Governor's B**

#91. 12:00-1:00 **Session: Gr. 9-12, Gen** **Keystone A**

Friday, Engage Students with Real World Data Analysis

Janet M. Winter, Penn State University

Arrive with ideas to share for spontaneous data collection, learn about spontaneous data collection activities that wake up even sleepy college students, and leave with ideas for problems that are not only useful in and out of class, but also to develop a historical perspective.

#92. 12:00-1:00 **Session: Gr. 3-8** **Keystone B**

Do You Measure Up?

Nancy Skocik, California University of PA, with Alex Bezjak

Show your students how to convert between the metric system and United States measurements and vice-a-versa using the multiplication chain.

#93. 12:00-1:00 **Session: Gr. 9-12** **Keystone C**

Interactive Technology to Support Formal Assessment

Doyt Jones, Consultant

Today's technology allows classroom teachers to frequently assess student learning and presents the opportunity for students to investigate more concepts in a shorter time span. Specific problems addressing SAS benchmarks will be covered in this session utilizing TI-Nspire and Navigator.

#94. 12:00-1:00

Session: Gen

State

*Things My Seventh Grade Teacher Taught Me***James Troutman, York College of PA**

An adventure in mathematics. Researching a seventh grade algorithm for square roots, circa 1960, to find an ancient use of geometric arithmetic for the solution.

#95. 1:15-2:30

Spotlight Speaker

Keystone D

*Problem Solving Using Unit Analysis***Ron Larson, Penn State - Erie and Larson Texts, Inc.**

This talk describes a procedure for helping students set up real-life problems. Have your students ever stared at a word problem and said “I don’t know where to start?” This procedure turns the problem into something kinetic ... and gives them “somewhere to start”. In the talk, sample worksheets will be distributed. The procedure involves some general rules for unit analysis.

Ron Larson received his Ph.D. in mathematics from the University of Colorado in 1970. At that time he accepted a position with Penn State University in Erie, Pennsylvania, and currently holds the rank of professor of mathematics at the university. Ron is the lead author of over two dozen mathematics textbooks from 6th grade through calculus. Many of his texts, such as the 9th edition of his calculus text, are leaders in their markets. Ron Larson is one of the pioneers in the use of multimedia to enhance the learning of mathematics. He has authored multimedia programs that range from 1st grade through calculus. Larson’s middle school series, Big Ideas Math, is a new program that addresses the NCTM Focal Points. His website is www.RonLarson.com.



#96. 1:15-2:15

Session: Gr. 3-8

Keystone A

*Using Web2.0 in the Intermediate Math Classroom***Michael A. Soskil, Wallenpaupack Area School District**

Have you been searching for a way to integrate technology into your math classroom without breaking your budget? We will explore free and very low-cost web-based technologies that can both build important 21st century skills and increase student understanding and engagement.

#97. 1:15-2:15

Session: Gr. 9-12, T.Ed

Keystone B

*Rethinking Algebra: When the CAS Does It All***Jason VanBilliard, Philadelphia Biblical University**

Participants will dialogue concerning the value of teaching various algebra topics in light of the power and availability of computer algebra systems (CAS).

#98. 1:15-2:15

Session: Gr. 3-8

Keystone C

*How SMART R U? Using a SMART Board***Edel Mary Reilly, Indiana University of Pennsylvania**

Participants will be shown how to teach fractions and other concepts to elementary/middle level students using SMARTBOARDS. Classroom-ready activities will be provided.

#99. 1:15-2:15

Session: Gr. K-5

Susquehanna

*SMART Calendar Math for Students of All Ages***Dana Thompson, Propel EAST, with Janis Sylves,
St. Edmund's Academy**

Discover a data-driven approach that combines Smartboard technology and Calendar Math to review or introduce difficult concepts in the primary and intermediate grade levels.

#100. 1:15-2:15

Session: Gen

State

*Mathematics Education in the U.S. and Internationally***Marguerite Gravez, Penn State University, Retired**

Why do U. S. students do so poorly on international tests? From preschool to no national curriculum, let us discuss the reasons.

#101. 1:15-2:30

Workshop: Gr. 6-12

Keystone E

*Study Team Strategies***Astrida Lizins, Twin Valley Middle School, with Lisa Thiry, Twin Valley Middle School**

Participants will discuss and practice ways to put teams together, questioning techniques, what makes a good team, roles that could be used, guidelines for the classroom, and then practice several study team strategies. Discussion will center on when to use these strategies and how to process them.

#102. 1:15-2:30

Workshop: Grades 6-16

Veranda

*Podcasting Developmental Mathematics***Jason Rosenberry, HACC-Gettysburg**

A technical look at how to incorporate podcasting into the mathematics classroom.

Minute Math #10: An object moves 8 cm in a straight line from A to B , turns at an angle θ , measured in radians and chosen at random from $(0, \pi)$, and moves 5 cm in a straight line to C . What is the probability that $AC < 7$?

Answer on page 28.

- #103. 1:15-2:30** **Workshop: Gen** **Commonwealth**
Websites for Developmental Math We Absolutely Love!
Diane Devanney, Cabrini College, with Brother Dominic Whetzel, Cabrini College
 Ever heard of www.mathdork.com , www.jamit.com or www.toonuniversity.com? Fabulous websites exist for Developmental Math, but who has the time to find them? We did and we'll share them with you!
- #104. 1:15-2:30** **Workshop: Gr. 9-12, Coll** **Senate**
Exploring Journal Writing to Learn Math and Statistics
John E. Hammett III, Saint Peter's College
 Participating teachers will explore several journal writing formats (e.g., the learning, homework, and test journals), model at least one journal writing format, and discuss how to implement and assess them.
- #105. 2:30-3:30** **Session: Gr. 9-12** **Keystone A**
180 Days of Fun
Bob Stover, Calvert High School
 35 years of learning from my students can't be all bad. Enjoy what my kids have taught me over the years! Bart's theory, the Lasagna Principal, and much more. Come in and have some fun! Handouts will be provided.
- #106. 2:30-3:30** **Session: Gr. 3-5** **Keystone B**
Two Minutes of Fame...Math Fame That Is!
Debbie Malicky, Marion Center Area School District, with Rita McMinn, Marion Center Area School District
 Always wanted to present? Join a "sharing session" in which each willing participant will present (just for a few minutes) a favorite strategy/math activity! Please bring hard copies!
- #107. 2:30-3:30** **Session: Gr. 6-8. Gen** **Keystone C**
Learning Support Success: Aiming for Proficiency on the PSSA
Susann Savelli-Keska, Pittston Area School District, with Laurie A. Rebovich, Pittston Area School District
 This presentation will focus on how to best meet the needs of learning support students to help them become proficient on the PSSA. Topics will include data analysis, data interpretation, differentiation, remediation and study skills within the regular classroom.

#108. 2:30-3:30 **Session: Gr. K-5** **Susquehanna**

Keeping Up, Not Catching Up: Differentiating Instruction Without Differentiating Children

Shannon Sauder, Watertown School District, MA, with Dan Sidelnick, School Specialty

For strugglers, timing matters. A little help before a lesson gives a child two chances to learn—the help session, and then the lesson for which the child is more ready. It saves time, doesn't hold the class back, and helps strugglers get the real lesson, not watered down, so they can rejoin the mainstream rather than falling further behind. Teaching strategies from School Specialty's new THINK MATH program will be highlighted.

#109. 2:30-3:30 **Session: Coll, T.Ed, Gen** **State**

The Mathematical Mind and Mental Calculation

James Gregg, HACC-Harrisburg

The mathematical mind. Are we born with it or do we create it? Can specific, selected methods or mental calculation prepare a mind to more readily use higher elementary mathematics?

#110. 2:30-3:30 **Session: Gen** **Governor's B**

Online Programs for You and Your Students

Mark Losey, Educational Technology Consultants, Inc.

See an overview of two online programs: the ALEKS, a web-based, artificially intelligent assessment and learning system; and First in Math, an online program built around the 24 Game.

Answers and sources for the Minute Math problems

- | | | |
|-----|---------------|------------------------------------|
| 1. | Answer: 8 | Source: Math Olympiads for Elem/MS |
| 2. | Answer: 69 | Source: 2004 AMC 8 |
| 3. | Answer: 13 | Source: 2007 AMC 8 |
| 4. | Answer: 4 | Source: 2006 AMC 10 |
| 5. | Answer: 3.4r | Source: 2008 AMC 10 |
| 6. | Answer: 43 | Source: 2006 AMC 12 |
| 7. | Answer: 18 | Source: 2004 AMC 10 |
| 8. | Answer: 8 | Source: 2005 AMC 12 |
| 9. | Answer: 19/56 | Source: 2005 AMC 12 |
| 10. | Answer: 1/3 | Source: 2003 AMC 12 |

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Door Prizes

Special thanks to the following companies for providing door prizes:

D&H Distributing
The Math Forum
Nasco
Neufeld Learning Systems
Triumph Learning

Vendors and Exhibitors

Amsco School Publications, Inc	Key Curriculum Press
Bedford, Freeman & Worth Publishers/ W.H. Freeman & Co.	Lock Haven University of PA
BestQuest Teaching Systems	McGraw-Hill
Borenson and Associates, Inc; Hands-on-Equations	McGraw-Hill Intervention
Carnegie Learning	MC2 Math Media
Casio America, Inc	MIND Research Institute
Castle Software, Inc.	Neufeld Learning Systems, Inc
CORD Communications, Inc	Pearson
Cengage Learning	Peoples Education, Inc
CPM Educational Program	Plato Learning
Dymo/Mimio Interactive Teaching Technologies	Renaissance Learning
EAI Education	Scholastic, Inc.
Educational Technology Consultants, Inc.	School Specialty Math
Educators Outlet	Texas Instruments
ETA / Cuisenaire	Triumph Learning
Houghton Mifflin Harcourt	
I CAN Learn Education Systems	

Pre-Service Teacher Day at PCTM
Governor's Ballroom B
Thursday, November 11, 2010
Co-Sponsored by PCTM and PAMTE
Schedule of Events

8:00-8:15am Welcome to Pre-Service Teacher Day

Nina Girard, University of Pittsburgh at Johnstown

Welcome to the PCTM Conference! Special conference activities and opportunities designed specifically for pre-service teachers will be explained.

8:15-8:45am First timers' session for Pre-Service Teachers

Pauline Chow, PCTM President, Harrisburg Area Community College

This session will provide suggestions on how to make the most of the conference, as well as provide information on the mission of PCTM as a professional organization and what PCTM can do for new teachers.

Attend morning sessions and workshops of choice

12:00-12:30pm Luncheon (provided for those pre-registered for this event)

12:30-1:00pm FAQs for New Teachers

Doug Ensley, Shippensburg University

This session will offer some frequently asked student questions and the college level mathematics that will help you understand how to answer.

*Attend afternoon sessions and workshops of choice
Visit Exhibit Hall to complete Scavenger Hunt*

3:30-4:30pm Pre-Service Teacher Talks (sponsored by PAMTE)

Mary Lou Metz, Indiana University of PA, and Judy Werner, Slippery Rock University

An opportunity for pre-service teachers to share short 15-min presentations of work that they've designed/created or used in fieldwork in schools.

4:30-5:00pm Learn-Reflect Sharing Session

Nina Girard, University of Pittsburgh at Johnstown, and Jim Preston, Slippery Rock University

PCTM Early Career Day
Governor's Ballroom A
Friday, November 12, 2010
Schedule of Events

Remember to register at the main conference check-in table.

7:30-8:00 am Light breakfast

Leave One – Take One table: All attendees are encouraged to bring copies (at least 20) of a favorite mathematical task to share with other participants. Everyone is welcome to browse the documents that others bring and take copies of those that interest you.

8:00–8:20 am Welcome and opening remarks.

Debbie Gochenaur, Shippensburg University

Welcome to the PCTM Conference! Special conference activities and opportunities designed specifically for early career teachers will be explained.

Pauline Chow, PCTM President, Harrisburg Area Community College

Suggestions on how to make the most of the conference, as well as provide information on the mission of PCTM as a professional organization and what PCTM can do for early career teachers.

Travis Miller, Millersville University

Instructions for the morning.

8:20-11:50 am Attend main conference

Attendees can attend the Keystone Exam Sessions or other conference sessions or spotlight speakers, visiting our own Leave One- Take One table or the Exhibit Hall, before those sessions begin.

Noon-1:05 pm Luncheon (box lunches will be provided).

Michelle Switala, PDE 2010 Teacher of the Year

This session will offer some guidance for those in the beginning stages of their careers on how to become a successful and effective mathematics teacher.

1:15-2:30 pm Attend main conference session of choice.

2:30-3:45 pm Round Table Discussions.

An opportunity for early career teachers to share ideas with each other in areas such as working with students with special needs, implementing IEPs, reaching diverse populations, strengthening content knowledge, and encouraging parental involvement. Please note there will be two different rounds with a 10 minute break in the middle.

3:45-4:00 pm Closing Remarks.

Debbie Gochenaur, Shippensburg University

Door prizes and Exhibit Hall Scavenger Hunt drawing winner.

Registration Hours

Wednesday 5:00 PM – 8:00 PM
 Thursday 7:30 AM – 3:30 PM
 Friday 7:30 AM – 11:30 AM

Exhibit Hours

Thursday 7:30 AM – 4:00 PM and 5:30 PM – 6:30 PM
 Friday 7:30 AM – noon

Bistro

A special cash Bistro (a la carte cafe) will be located inside the exhibit hall for both breakfast and lunch. The regular hotel restaurant will also be available throughout the conference.

PA Council of Supervisors of Mathematics (PCSM)

Questions about PCSM should be directed to Janie Zimmer (zimmer@rbed.us).

Wednesday, November 10

11:00 – 11:30 Registration
 11:30 – 12:30 Lunch
 12:30 – 1:00 Business Meeting
 1:00 – 2:30 Speakers
 2:30 – 3:00 Break
 3:00 – 5:00 Speakers

Thursday, November 11

7:00 – 9:00 Breakfast
 9:00 – noon Board Meeting

PA Association of Mathematics Teacher Educators (PAMTE)

Wednesday, November 10

4:00–4:15 PAMTE announcements and updates
 4:15–5:30 Panel and Roundtable Discussions

- Panel Discussion: *Expectations of School Leaders for Pre-service Elementary and Secondary Math Teachers*
- Roundtable: *How are we meeting these expectations?*
- Roundtable: *Meeting the new PDE Guidelines for Field Experience hours*

5:30–6:00 PAMTE Executive Board Meeting

Questions about PAMTE should be directed to Steve Williams. PAMTE President (swillia6@lhup.edu)

