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PRESIDENT'S MESSAGE

Dear Members,

I am delighted to serve as President of AMTNJ for 2023. Before me comes a long line of great leaders who worked to establish a voice for New Jersey's math teachers, and I am honored to be among those people.

As we move into 2023, I review how AMTNJ has helped me become a better educator. Here are a few of the things our volunteer team has recently accomplished for members:

2020 and 2021 Virtual EdCamp – We pivoted and digitally held asynchronous “unconferences” during the pandemic in September 2020 and 2021.

2020-2021 Weekly Virtual Offerings – We pivoted and held our annual two-day conference as a series of weekly virtual sessions throughout 2020-2021.

2021-2022 Engage Series – We expanded on our initial virtual offerings and held sustained, focused sets of three sessions that ENGAGED participants in a specific topic over several weeks. We are continued this effort in January and February 2023.

2022 “Teaching Matters” Conference - We reformatted our in-person annual two-day conference as a one-day event focused on teaching, K-16 and beyond. We expanded our audience to all grade levels, special educators, administrators, and higher educators. We had a positive turnout with almost 400 attendees, speakers, AMTNJ executives, and vendor representatives. The follow-up to this event, “Connections Matter,” is on March 17 at Rutgers, and we hope to see you there!

2022 AP Precalculus Session for NJ Educators - We worked with the College Board to give New Jersey educators and leaders access to the latest information about this new course offering.

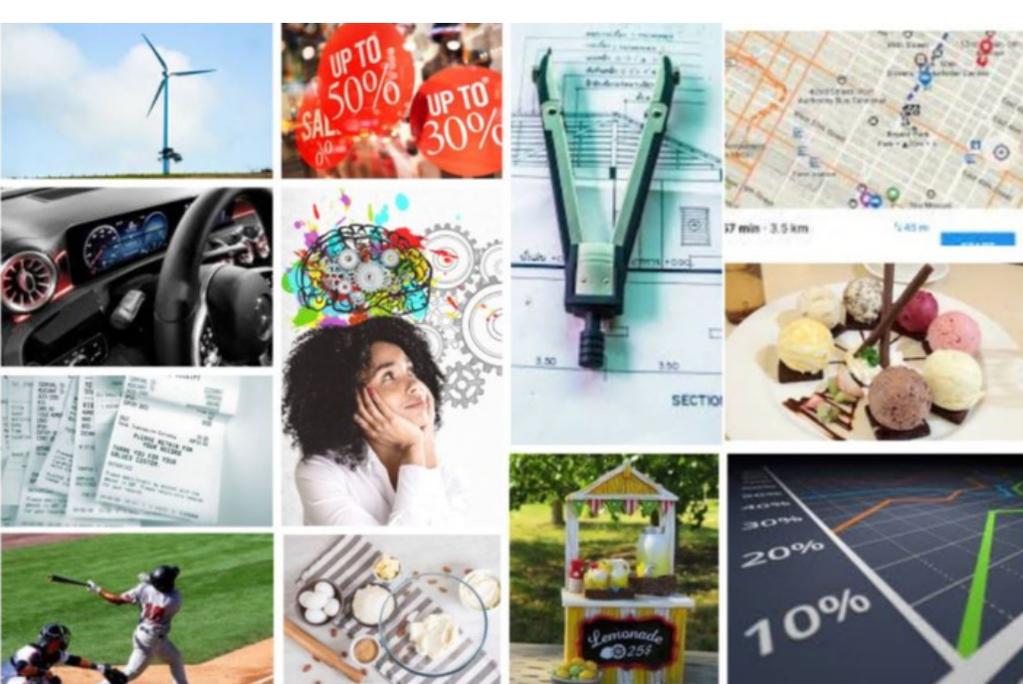
Scholarships – AMTNJ supported multiple preservice math teachers with scholarships for completing their undergraduate coursework. As a 2003 AMTNJ Scholarship recipient, I believe in the power of supporting the next generation of math teachers and leaders.

I want to thank our immediate past president Andrea Bean, our 2022 board members, our annual conference committee, and other special committee members for the hard work and dedication that these last several years have required. Thank you for your creativity and enthusiasm that made this past Fall's conference a wonderful experience. We look forward to developing new offerings and adapting to trends and innovations in mathematics education in 2023. Be on the lookout for 2023 Summer Institute information and the return of our one-day workshops in Fall 2023 coming soon.

Thanks to you for being faithful members and devoted math educators. If you have suggestions, questions, or concerns, I hope you will reach out to me in the coming year. I look forward to connecting with you!

Kind regards,

John Kerrigan, Ed.D.



AMTNJ MIDDLE SCHOOL MATH CONTEST

The 11th annual AMTNJ Middle School Math Contest will take place on Thursday, February 16th, 2023. This contest is annual, and middle schools who want to participate next year should contact info@amtnj.org if they want to be on the emailing list. The content is 6th grade math through Algebra 1. The format includes 9-10 challenging questions in 60 minutes. Please see our website for details, or email info@amtnj.org with questions.

REMINDER: AMTNJ SCHOLARSHIP APPLICATIONS DUE APRIL 15, 2023

Joan J. Vas, Executive Coordinator

The Association of Mathematics Teachers of New Jersey Scholarship Program was designed to support the efforts of graduating high school seniors who wished to pursue a career in mathematics education. This program has been in existence for the past 26 years and over 60 candidates have received scholarships. Applications are due April 15, 2023.

Any member of AMTNJ can nominate High School students who indicate that they have a desire to become mathematic educators and who are about to graduate from high school. The current application is available on the AMTNJ website, www.amtnj.org

A committee evaluates these applications and awardees are announced each May. All awardees are able to apply for renewal of their scholarships for the subsequent three years. The applicants **MUST** still be majoring in mathematics education and maintain good grades. The money awarded each year is dependent on available funds.

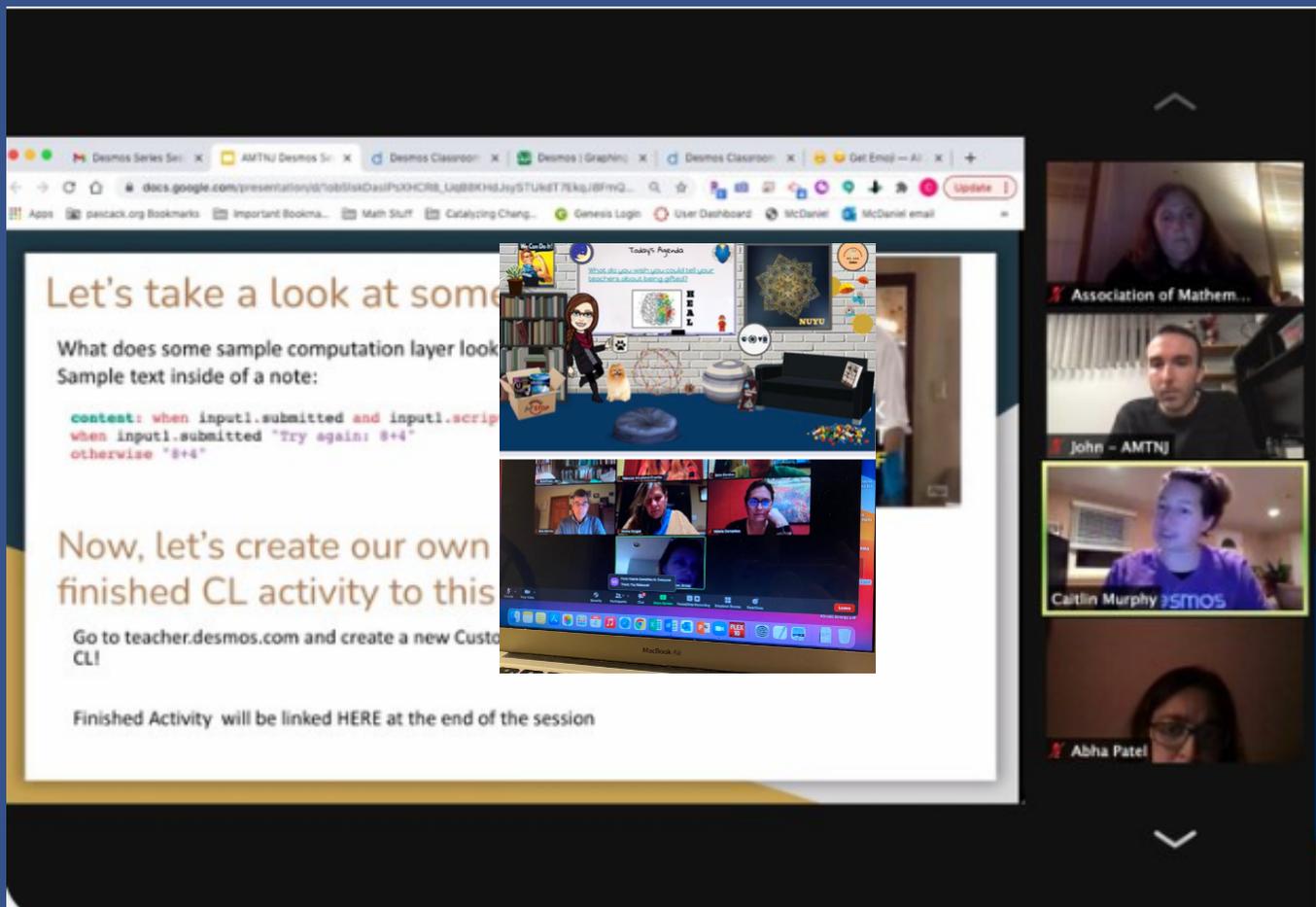
AMTNJ has a strong history of commitment to improving the field of mathematic educators and supports the development of young people in this vocation. Please join us in our efforts and donate to the future of NJ math educators.

Your contributions, payable to this 501-C3, tax deductible charitable program, should be mailed to: AMTNJ Scholarship Program, 111 Third Avenue, Belmar, NJ 07719.

Thank you to ALL AMTNJ members for your donations. With your support, this program will continue for many more years. Application link: bit.ly/AMTNJScholarship

New FREE Offerings for Math Teachers and Leaders

AMTNJ is now offering FREE one-hour Zoom webinars to empower mathematics teachers and leaders in their quest to bring students the best possible curricular resources. We began this effort in December 2022 by having the College Board offer an exclusive one-hour session on AP Precalculus for New Jersey math teachers and leaders. This session included a thorough presentation, followed by ample time for Q&A. Building off this structure for 2023, we will be partnering with the College Board again to offer a one-hour session on the upcoming new digital SAT, and we will be partnering with EdReports to offer a one-hour session on using EdReports' features to make informed curricular decisions. Stay tuned for more information on these exciting new late-spring offerings!



NJ PAEMST Finalist Nicole Williams Announced

Kathleen Carter, 2nd Vice President



In March of 2022 **Nicole Williams** was named a New Jersey Finalist for the Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST) in the area of mathematics. The Presidential Awards recognize outstanding teaching for grades k-12 in the science, technology, engineering, mathematics and/or computer science. The 2021-2022 nomination cycle for Presidential Awards was open for teachers grades K-6. The New Jersey Finalists in the area of science are Heather Higgins from North Plainfield School District, Katheryn Kennedy from The Peck School and Regina McKenna Nadbielny from Scholars Academy in Orange, NJ. Candidates for the award must demonstrate in-depth knowledge of their content, engaging instructional methods to support student learning, and appropriate assessment strategies. In addition these finalists exhibit habits of reflective practice and demonstrate leadership in education beyond the classroom.

Nicole has been a Math Specialist at Liberty Corner Elementary in Somerset County since 2017 where she was named Teacher of the Year for 2022. In her role she supports students of all grade levels through lessons that allow children to discover the amazing mathematical skills that they already possess. She finds mathematics magical as patterns emerge and students work to figure out why those patterns are happening. Nicole started her teaching career with a third grade class at Jonas Bronck Elementary School (PS 43) in the Bronx in 2003. She also taught kindergarten, grade 3 and grade 6 at the Manhattan School for Children (PS 333). While at the Manhattan School for Children she worked closely with coaches from Math in the City, a national center supporting K - 8 educators in conjunction with City College of New York and the Freudenthal Institute in the Netherlands, to align curriculum standards and bring best practices to the classroom. Nicole was awarded the 2020 Elementary Mathematics Specialist Scholarship from the Association of Mathematics Teacher Educators (AMTE) to further her studies in the field of mathematics education. She looks forward to the journey ahead to ignite more joy, playfulness, creativity and inherent wonder in mathematics in her school community.

The state finalists were selected by a panel of New Jersey mathematicians, education researchers, district - level personnel and classroom teachers. Each received feedback from the panel and had the opportunity to revise his/her submitted application before it was forwarded to the national competition in May 2022. There is 1 finalist for mathematics and 3 finalists for science. The National Science Foundation reviews the applications of the state finalists and forwards 2 candidates to the White House Office of Science and Technology Policy. The winners receive a certificate signed by the president, a \$10,000 award from NSF, and a paid trip to recognition events and professional development offerings in Washington, DC. Best of luck to Nicole as she awaits the White House announcement of the New Jersey Presidential Awardee for 2022.

For more information about PAEMST, please visit paemst.org.

"Connections Matter" Conference

Join AMTNJ on Friday, March 17th, 2023 for our "Connections Matter" conference at Rutgers University Tillett Hall.

Registration and Breakfast (sponsored by EdGems Math): 7:00 AM - 8:30 AM

Vendor Exhibits: 8:00 AM - 3:00 PM

Lunch (sponsored by Renaissance and STEMScopes): 11:30 AM - 12:20 PM

Closing and Door Prizes: 2:30 PM - 3:00 PM

Sessions include the following bands: K-5, 6-8, Algebra 1, Geometry, Algebra 2, Pre-Calc, Calc, Stat/Data/CS, non-assessment AP, and general. This conference will host a "Think Tank" session with moderators

[Register Here](#)

Vendors include:

Rutgers Center for Mathematics, Science, and Computer Education

Heinemann

Rutgers Graduate School of Education

Savvas Learning Company

ByeLearn

EAI Education

Amplify

UWorld

Renaissance

Hand2Mind

NJ Center for Teaching and Learning

EdGems Math

CPM Educational Program

STEMscopes

Grand Canyon University

Get More Math

The Math Modernist

eMATHinstruction

National Geographic Learning

The Math Learning Center

ClassHero

Bill Smith: Max Sobel Winner "Amazing Person, Supervisor, and Mentor"

Jay L. Schiffman, Editor-In-Chief, The New Jersey Mathematics Teacher

In 2023, our Max Sobel Committee convened to select potential nominees for the most prestigious award bestowed upon a mathematics educator on behalf of AMTNJ. Let me introduce you to someone who has inspired more teachers than most administrators have in their lifetime and has positively impacted New Jersey students for fifty-seven years and counting. This person wore many hats serving as a teacher, District Mathematics Supervisor, and Supervisor of Curriculum and Instruction during his thirty-six years of service at Haddonfield Public Schools. This amazing person is **William (Bill) Smith**.

One of my esteemed colleagues on our AMTNJ Board of Trustees aptly articulates the role Bill played in shaping their career in numerous positive ways. The testimonial follows:

“As I walked into my first teaching job at Haddonfield Memorial High School, what I didn’t realize is that the lessons I learned from my first mathematics supervisor and mentor, Bill Smith, would help set the direction of my teaching career. Bill has a way of setting careers in the right direction. Every teacher’s first year of teaching is memorable, but I encountered some unique experiences that Bill helped me navigate. Since my first year of teaching included students choosing the periods to take classes like in college (every first-year teacher’s dream class management situation), standards being implemented for the first time ever, and dealing with a suicide, which made national news, I was so glad Bill Smith was my supervisor. I would have left teaching after my first year otherwise. He taught me how to effectively teach in a high-performing district. He is one of the biggest reasons I became successful in my career. He also believes that teachers must be involved at the local and state levels. Bill was respected by all members of the mathematics department, and he allowed all teachers to develop their craft according to who they were.”

Bill Smith graduated from Dickinson College in Carlisle, Pennsylvania with a Bachelor of Science degree in mathematics and a minor in physics. Bill later earned his master’s degree in mathematics education at Glassboro State College, now Rowan University. He began his mathematical education career in 1966 as a teacher at Haddonfield Memorial High School in Haddonfield, New Jersey. From September 1971 to June 1976, Bill served as mathematics department chair with a reduced teaching load. From July 1980 to June 1994, Bill served as Haddonfield’s K-12 Supervisor of Computers and Mathematics. From July 1994 until June 1997, Bill became the District’s K-12 Supervisor of Mathematics. During Bill’s role as Supervisor of Curriculum and Instruction, serving from July 1997 to June 2002, he taught two classes for a teacher on maternity leave in 2000 and taught his own class during the 2001-2002 school year, and worked in classes with a teacher part time through the 1998-1999 school year. Upon retiring from Haddonfield Public Schools in 2002, Bill became an educational consultant.

As a consultant, he served as an educational coach to teachers, leader of committees, and was a workshop presenter. For several years after his retirement from the Haddonfield Public Schools in 2002, Bill served as a workshop team presenter for McSiip (Mathematics and Science Instructional Improvement Program) under the direction of Dr. Janet Caldwell as well as served as an adjunct professor. From September 2013 until June 2019, Bill was hired on a series of one-year contracts to teach mathematics education courses for pre-service teachers where he instructed three sections each semester. In September 2019, Bill returned as an adjunct professor at Rowan University and in 2021 was an adjunct professor for Raritan Valley Community College.

Bill’s passion for best practices in teaching and learning mathematics education transcended classrooms and buildings. He had a commitment to serve the mathematics educational community. From 1992-1996 and from 2000-2001, Bill facilitated, co-coordinated and helped write the New Jersey Mathematics Standards. Prior to the release of the New Jersey Mathematics Standards, the New Jersey Department of Education conducted feedback sessions and scheduled several sites throughout New Jersey. Unfortunately, one of the NJDOE members in the mathematics department became ill and was out for several weeks. Bill knew the importance of these sessions and stepped in his place to facilitate the feedback sessions while the NJDOE employee was out. He traveled throughout the state of New Jersey to receive feedback. One teacher at one of those feedback sessions in North Jersey, recalls asking Bill to explain the phrase, . . . underpinnings of calculus... in the preliminary document. The teacher said he explained that by teaching arithmetic and geometric sequences, teachers were teaching the underpinnings of the concept of a limit. It was ultimately (regrettably) removed from the final version of the standards document that year. Bill thoroughly knew the mathematics curriculum in New Jersey and how it should be taught.

Like today, the decade of the 1990’s initiated a call for change in both what should be taught in mathematics classrooms and as well as the manner it should be taught. The result of the 1990’s call was the New Jersey Mathematics Curricular Framework, which Bill helped write along with Joe Rosenstein, Warren Crown, and the late Janet Caldwell. The goal of the New Jersey Mathematics Curricular Framework was as follows: “Enable all New Jersey’s children to move into the twenty-first century with the mathematical skills, understandings, and attitudes that they will need to be successful in their careers and daily lives.” As a classroom teacher, Bill meticulously prepared his lessons as though this was always the goal of the day. One teacher recalls after teaching his lessons, Bill filed away his lesson plans – in the trash can. One day the teacher asked Bill why he did that. His reply was “Every class was different; therefore, every lesson plan should be planned according to that class.”

Bill Smith: Max Sobel Winner (continued)

Even back in the 90's, Bill knew students were all different. As a supervisor, Bill was ahead of his time. Equitable practices are being emphasized now, but he practiced them back in the 1990's. Bill felt that every student needed to be reached and taught mathematics. One of Bill's teachers who worked for him at Haddonfield recalls Bill finding spaces within the building to allow students and teachers to work beyond the classroom. He would even make room in a closet if needed. Bill always put students first. He would even create extremely small classes to reach every child. One of Bill's teachers said that Bill insisted that his teachers differentiate instruction, including using technology. Of course, using graphing calculators was considered implementing technology three decades ago. During that era, Bill encouraged his teachers to use manipulatives, including an onion to describe the shell method in a calculus class and often used manipulatives in his class.

As a mathematics education faculty member at Rowan University, Bill taught both mathematics and mathematics education classes. At Raritan Community College, Bill teaches mathematics classes in the RISE Program, Returning & Incarcerated Student Education and is still currently teaching these classes. At Rowan University, Bill teaches mathematics and mathematics education classes. While at Rowan, he served as a member of the Math Steering Committee, annotated syllabi, coordinated Structures I, assisted with Structures I during summer orientations and observed adjunct professors.

During Bill's fifty-seven year career in mathematics education, he touched the lives of many K-12 teachers serving in numerous roles. He was a grant facilitator for Bridgeton and Millville Schools. Bill taught mathematics courses for over fifty years, was a mathematics supervisor, a supervisor of curriculum, mentored teachers, presented workshops, facilitated grants, and helped write the math standards for New Jersey. In addition, Bill helped write the New Jersey Curricular Framework, and served as both a mathematics faculty member and an adjunct professor, presented numerous workshops, and mentored K-12 teachers. Without considering, Bill's work with Haddonfield Public Schools and work at the collegiate level, Bill positively affected over one hundred thousand New Jersey teachers in his work with the New Jersey Mathematics Standards and the New Jersey Mathematics Curricular Framework.

Only passionate lifelong learners stay in the profession for over half a century! He will be teaching in the Spring 2023. Bill's passion for students and mathematics education is represented in all the teachers he inspired and mentored. He has touched hundreds of teachers lives and made them better teachers and leaders. Bill has a way of making the math standards interesting and relevant. He encourages math educators to advocate for mathematics standards and best practices to serve the students of New Jersey and has provided the foundation resulting in many excellent mathematics teachers. It was through his mentoring and guidance, that some of these teachers were on a NJDOE mathematical standards review committee and went on to have successful careers. Bill's over five decades of commitment and passion for students and teachers exemplifies the attributes and dimensions that Max Sobel desired of his recipients.

AMTNJ: Stay in the 'know'

Special FREE Webinars for Teachers/Leaders - *April 2023*
(EdReports and College Board New Digital Math SAT)

AMTNJ Summer Institutes - *July and August 2023*

Fall 2023 One Day Conference - *October 2023*

Keep up with us on twitter @amtnj

Best Practices in Elementary Math Teaching

Kara Teehan, 1st Vice President

Teaching elementary school level mathematics can be fun, engaging, and is so important since we are building a foundation for our students. Best practices when teaching this important level of math learning include:

- Establish mathematics goals to focus reasoning
- Implement tasks that promote reasoning and problem solving
- Use and connect mathematical representations
- Facilitate meaningful mathematical discourse
- Pose purposeful questions
- Build procedural fluency from conceptual understanding

We can implement these best practices by: making it hands-on, using visuals and images, finding opportunities to differentiate learning, asking students to explain their ideas, incorporating storytelling to make connections to real-world scenarios, showing and tell new concepts, and monitoring students' progress while keeping them aware of their progress. Positive feedback goes a long way! There are so many awesome tools (both digital and physical) that can be used to help students build understanding in mathematics at the elementary level. Pear Deck is a great tool to make a slide show, lecture, or example problem engaging. Manipulatives like fraction blocks, Unifix cubes, place value blocks, graph paper, number cubes, and 3D shapes can help students develop a visual image in their head and connect the math to something concrete. Differentiation in group work, assessments, assignments, and practice is essential to ensure the students who are excelling get a challenge, the students who need practice get to do that without the pace being too fast or slow, and the students who are struggling get individual and small group attention from the teacher. Having students verbally explain their ideas and provide verbal and written reasoning will help you as the teacher identify misconceptions or understand their problem solving approach. It also helps them to assess their work for errors and make sense of both the problem and their solution. Allowing students to grapple with a problem first or after instruction can build grit and confidence in students' problem solving skills and ability to persevere through challenges. Stay tuned to our next issue for more on best practices in elementary math teaching!

MATH ART CONTEST

How do you show your love of mathematics?

Art of various forms inspires wonder, joy, creativity, and engagement.

We invite all students enrolled in a teacher certification program at a college or university in NJ to submit an original artwork based on the theme:

“How do you show your love of mathematics?”

Contest Dates: February 6 - April 7, 2023 at 11:59pm EST

For details visit

<https://amtnj.org/contests/mathartcontest/>



Winners:

- Free registration for AMTNJ Fall 2023 Conference
- Honored at AMTNJ Conference
- Invitation to publish in NCTM MTLT Journal - For the Love of Mathematics department.

Sponsoring Mentor of Winners:

- Free registration for NJAMTE 2023 Annual Conference



New Teachers Section



What do you need to do to be successful in addressing learning gaps for students?

Take a deep breath! It is a huge undertaking to address learning gaps for students at any level in mathematics. Focus on differentiating your instruction, intervening with struggling students one-on-one and in small groups, and try differentiating in-class assignments and homework. Focus on quality of content learned, not how much you "cover". Try using manipulatives, drawings, graphs, and verbal descriptions to assist students in building images and concepts in their mind.



Math Education Student Corner

Attention future math teachers! This corner is for you. We want to feature research, thought pieces, art, and questions by current math education students at the undergraduate or graduate level. Please email info@amtnj.org for more info or to submit a piece of work!

Puzzle Corner

Fill in the blank squares so that each row and each column contain all of the digits 1 thru 5. The heavy lines indicate areas (called cages) that contain groups of numbers that can be combined (in any order) to produce the result shown in the cage, with the indicated math operation. For example, $12\times$ means you can multiply the values together to produce 12. Numbers in cages may repeat, as long as they are not in the same row or column.

5 +		15 ×		2 /
6 +	2 -	2 /	1 -	
				60 ×
3 ×		2 /		
3 -		2 -		