The Fall Issue 2025

AMTNJ
ASSOCIATION OF MATHEMATICS TEACHERS OF NEW JERSEY

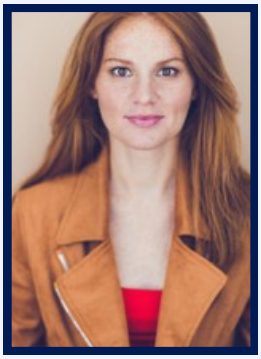
*A newsletter for all mathematics educators!*

**INSIDE, WE TALK ABOUT:**



# AMTNJ President's Message

***Kara Teehan***



Happy September! "Back to School" is an exciting season for educators as we prepare to teach new courses, take on new roles, improve upon our previous practice, and engage with a new group of students who are excited to learn. Thank you for all that you do in and out of the classroom. AMTNJ is proud to support math educators with professional development, publications, conferences, contests, and community.

AMTNJ will again host two math education conferences this fall to serve each group of Teachers:

- Pre-K–5: November 14, 2025
- Grades 6–12: November 21, 2025.

We really enjoyed tailoring our conferences to meet the specific needs of different grade levels. We look forward to seeing teachers, administrators, supervisors, interventionists, professors, and future educators at Brookdale Community College again this year for either or both conferences. Please check the website amtnj.org for registration information and preliminary programs.

AMTNJ awards scholarships annually to future math teachers in pre-service programs. Please see the included newsletter article highlighting this year's scholarship recipients. We accept donations toward the scholarship fund at every conference and are honored and grateful to have received a donation from Cliffside Park Middle School students this year.

On April 8th, AMTNJ hosted a sold-out Math Intervention workshop at Rutgers University. Due to its success and popularity, we plan to host another workshop next year as well. Our high school and middle school math contests take place early in 2026, so keep an eye on our website for registration details this fall. The students love the challenge and fun of the contests!

AMTNJ offers meaningful professional development throughout the year in the form of workshops and conferences. Please reach out or check our website for opportunities to engage in professional learning for math educators. AMTNJ takes great pride in supporting the growth of teachers' pedagogical skills.

Thank you, always, for all of the wonderful work you do as educators of mathematics!

Sincerely,

Kara Teehan

# Strategies for Tracking Fluency to Increase Proficiency from September to June

Estelle L. Maynard

As a Math Academic Interventionist, my work begins long before the first lesson is taught. Each year, I intentionally map out my instructional journey—carefully aligning goals, resources, and strategies to meet the diverse needs of my students. My role is not only to provide targeted support in mathematics, but also to ensure students feel seen, encouraged, and capable of achieving success.

This planning involves more than just content. It's about designing a year that builds skills progressively, addresses gaps with precision, and fosters confidence in every learner.

In these moments, I see myself as both a bridge and a guide—helping students cross from confusion to clarity, from hesitation to confidence. Every step, whether in the hallway or in the lesson, is intentional. And it is through this balance of structure, patience, and high expectations that I prepare my students for growth, not just in math, but in their approach to learning as a whole.

As educators, we know that building fluency in math is not about speed drills or memorization—it's about helping students develop flexibility, efficiency, and accuracy with numbers. True fluency unlocks deeper problem-solving, mathematical confidence, and long-term retention. But fluency doesn't develop by accident—it must be intentionally nurtured, tracked, and supported all year long.

Here's how I strategically track fluency and boost math proficiency from September through June, using targeted routines, meaningful data, and student ownership.

**1. Start with a Baseline Assessment in September or use NJSLA scores.**

The first step in improving fluency is knowing where each student begins. In September, I conduct quick one-on-one or small-group fluency checks. These are low-stress, formative assessments designed to give insight into:

- Accuracy
- Strategy use
- Flexibility with numbers
- Speed (only as appropriate)

Whether it's addition and subtraction facts in lower grades or multiplication and division in upper grades, this baseline becomes the anchor for all future tracking.

## 2. Set Individual Fluency Goals

Once I know where students are starting, we set goals together. Some may need to solidify basic facts, while others may be ready to extend into multi-digit computation or mental math strategies. Students are more motivated when they understand their own progress path. I post fluency trackers privately or allow students to maintain their own data in math journals or folders, making growth visible and personal.

## 3. Weekly Fluency Routines and Spiral Practice

Consistency is key. Every week, I build in fluency time using a mix of:

- Timed and untimed fluency sprints
- Partner games
- Strategy-focused discussions ("How did you solve that mentally?")
- Math talks
- Digital tools like Reflex Math, Xtramath, or teacher-created Google Forms

Each routine targets specific fluency goals while reinforcing past learning. I spiral content to ensure students don't forget what they've mastered.

## 4. Use Data to Drive Small Group Instruction

Fluency data isn't just for reporting—it should drive how we group students and target instruction. I use weekly or bi-weekly check-ins to identify:

- Students who need reteaching or strategy reinforcement
- Students who are ready to move ahead
- Misconceptions that are blocking fluency (e.g., counting on instead of decomposing)

These quick checks allow me to offer meaningful small-group work or 1:1 conferences without interrupting the whole-class flow.

## 5. Celebrate Growth, Not Just Accuracy

Students thrive on recognition. I celebrate all forms of growth—whether it's shaving 20 seconds off a fluency sprint, mastering a new strategy, or gaining confidence to explain thinking aloud.

Each month, we hold a brief "Fluency Reflection," where students chart progress, name something they've improved, and set a new target. It builds self-efficacy and motivates continued effort.

**6. Use Visuals and Graphs to Track Class Progress**

In addition to individual trackers, I post whole-class fluency goals using bar graphs, number lines, or goal boards. These show collective progress and foster a sense of community: "We're all getting better at math together." I also communicate fluency milestones with families through brief notes or conferences, giving them simple strategies to support at home.

**7. Reflect and Reset Each Quarter**

Fluency growth is not linear. Each quarter, I pause to analyze:

- Who is progressing?
- Who is stuck—and why?
- Are we using strategies or just memorizing?
- Are my fluency routines still effective?

I reset goals as needed and bring in new strategies to keep fluency instruction fresh and aligned with upcoming math units.

**So in conclusion From September to June—Building Mathematical Confidence is the key to help our students to be successful.**

Tracking fluency is not just about numbers—it's about watching students evolve as thinkers. With clear routines, data-informed instruction, and meaningful student reflection, fluency becomes a powerful bridge to overall math proficiency.

By starting early and staying consistent, we can ensure that by June, every student leaves our classroom more confident, capable, and mathematically fluent than they were in September.

# Honoring New Jersey's 2025 PAEMST Finalists

Anne Paoletti Bayna

The Association of Mathematics Teachers of New Jersey (AMTNJ) is proud to recognize the two exceptional educators who were selected as state finalists for the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST). While the national program has been paused, their achievement remains a testament to their passion and dedication to STEM education in our state.

The PAEMST award is the nation's highest honor for K-12 STEM teachers. To be named a state finalist is a rigorous process that involves demonstrating excellence in five key areas: content knowledge, instructional strategies, student assessment, reflective practice, and leadership. These teachers have demonstrated these high standards, showcasing their commitment to creating engaging and impactful learning environments.

Their selection as finalists highlights the outstanding work being done by mathematics educators across New Jersey. It is a moment to celebrate their innovative teaching methods, their ability to inspire students, and their vital role in shaping the next generation of problem-solvers.

AMTNJ extends its deepest gratitude to these two dedicated educators. We believe that their hard work and success deserve to be celebrated, and we are committed to honoring them and their contributions to the field of mathematics education. Their accomplishments serve as an inspiration to all of us.

## ~ Meet the 2025 New Jersey State Finalists ~

### Casey Beck
**Seneca High School**

Casey Beck, a math and computer science teacher at Seneca High School in the Lenape Regional High School District, has been an educator for a decade. Specializing in special education in both Behavioral and Pull-Out Replacement settings, Casey incorporates a unique teaching philosophy.

Casey's teaching philosophy is rooted in **The Grit Project**, a strategy focused on helping students healthily struggle and persevere through challenging, non-content-related problems. This low-stakes environment allows students to

practice their **Habits of Mind**, building resilience that translates to more complex mathematical and computer science tasks. This approach encourages students to take risks and problem-solve, transforming their relationship with challenges.

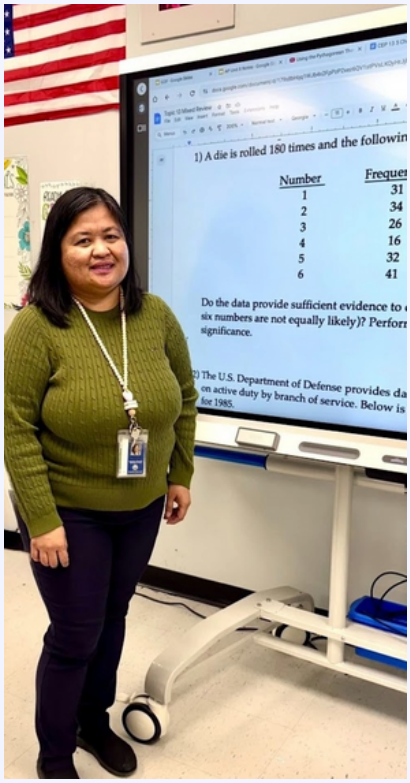
Casey's professional growth was significantly influenced by an early experience at the NCTM conference. This event instilled in Casey the value of **fostering collegial relationships** with fellow teachers to "nerd out" and share ideas, especially in topics like Data Science.

When asked for advice for other math teachers, Casey emphasizes the importance of **taking risks**. "We ask our students to, so why shouldn't we? We are still learning too, and in failing, you learn and there's always the chance you create something wonderful." Casey's proudest accomplishment is seeing a former student succeed in a government position in a field they discovered a passion for in her classroom—a testament to her lasting impact.

## Marizelle Ramos Cristobal,
## Central Jersey College Prep Charter School

Marizelle Ramos Cristobal is a high school math teacher at Central Jersey College Prep Charter School, with 21 years of teaching experience in Algebra 1, CEP Statistics, and AP Statistics. Marizelle's approach to teaching focuses on making math tangible and relevant.

A key strategy she uses is hands-on activities, such as the Barbie Bungee Jumping Activity in her AP Statistics class. This project allows students to collect and analyze data in a fun, real-world context, fostering collaboration and critical thinking.




Marizelle has also overcome significant challenges, including a language barrier she faced upon moving to the U.S. 18 years ago. She learned to adapt by actively listening to her students, asking for clarification on unfamiliar words, and making it a habit to check for understanding. This experience taught her to never assume that everyone interprets concepts or vocabulary in the same way.

Marizelle hopes for a future where math education in New Jersey is more meaningful, with lessons that connect concepts to real-world problems, essential skills, and future careers. She wants to eliminate the question, "Where are we going to use this in real life?" by showing students the practical application of their knowledge.

Her proudest accomplishment as a teacher is seeing her students succeed in their chosen paths and hearing from them that she played a part in helping them reach their goals. This is a powerful reminder of the lasting impact educators have on their students' lives.

## ~ New Jersey PAEMST Awardees Announced in 2025 ~

While the 2025 awards are currently on hold, we are thrilled to recognize the New Jersey educators who were honored earlier this year for their recent achievements. In a January 13, 2025, press release, President Biden announced the recipients of the **PAEMST** awards for 2021 - 2023. This prestigious award honors the vital role that teachers and mentors play in shaping the next generation of mathematics and STEM leaders.

We extend our congratulations to the following New Jersey awardees and the schools they served at the time of their nominations:

- **2021 Award, 7-12 Mathematics:** Anne Paoletti
  Clearview Regional High School
  Mullica Hill, NJ

- **2022 Award, K-6 Mathematics:** Nicole Williams
  Liberty Corner School
  Liberty Corner, NJ

- **2023 Award, 7-12 Mathematics:** Benjamin Isecke
  Bergen County Academies
  Hackensack, NJ

These educators have demonstrated their deep content knowledge and unwavering dedication to improving STEM education. We commend them for their outstanding contributions and congratulate them on receiving the nation's highest honor for K-12 STEM teachers.

## ~ 2024 PAEMST State Finalists ~

The Association of Mathematics Teachers of New Jersey (AMTNJ) also recognizes the 2024 state finalists for their exemplary work and dedication. Their selection for this honor is a significant achievement and a testament to their innovative teaching and commitment to students. We congratulate:

- **Hanan Attiyah:** Elementary Technology Integration Specialist, Flemington - Raritan Regional School District

- **Bryan Pawling**: STEM Teacher, KIPP Lanning Middle School, Camden

## ~ An Important Update on the PAEMST Program ~

As we celebrate our state finalists, it's important to note the current status of the national PAEMST program. Normally, awardees receive a certificate signed by the President, a paid trip to Washington, D.C., and a $10,000 award from the U.S. National Science Foundation (NSF). However, on July 18, 2025, the NSF announced a pause to conduct a comprehensive review. The 2024 cycle is still under review. Unfortunately, the 2025 nominations will not be considered, and no applications will be accepted for FY 2026. The NSF has stated that it will provide future updates.

# The Math Walk

*Merging kinesthetic learning, authentic learning, test review, and formative assessment into one engaging activity*

**David R. Kleiner**

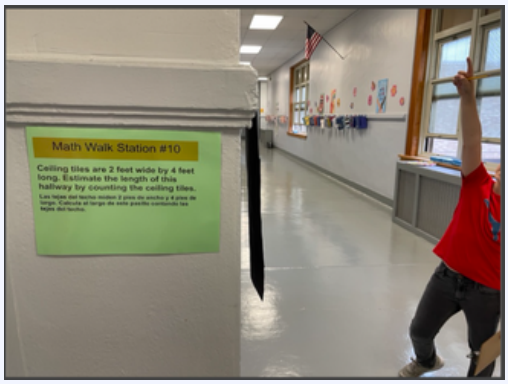
As a Math interventionist in grades three through five, I was looking for an instructional framework to draw my students out of the virtual world and into the real world. I wanted the exercise to be authentic, meaning the Math involved would reflect actual situations and objects in the school building. My goal was to improve the learners' observation skills, review Math concepts from earlier lessons, and get them moving around the building. As a bonus, they would be working cooperatively with their classmates, incorporating discourse using Mathematical language, and finding multiple ways to solve problems.

I teach Basic Skills Intervention Math (BSI) at School 13 in Clifton. We are a Title 1 school, and over half of my students are Multilingual Learners (MML). With permission from my principal, Dr. Rachel Capizzi, I scouted the second floor of our building for potential Math observations and problems. Carrying my trusty clipboard, I found eleven areas, which I called "stations", where Math could be observed and applied. I was particularly interested in finding applications where students would compute area and perimeter of rectangles, since I was aware this was an area of much confusion and misconceptions among our young learners.

My stations included tasks such as creating equations to describe the patterns of windows, identifying various shapes in the courtyard, measuring and computing the area of a small door, computing the perimeter of a rectangle on the floor, counting parallelograms in a hallway, and using ceiling tiles to estimate the length of another hallway.

I created laminated signs for each of the stations, with instructions in English and Spanish. I also created a response sheet, so each student would be accountable for their work. Since I normally push into my classes, I invited three to five students in each class to take the Math Walk during my normal lesson time. I learned that, in most cases, it took two thirty-minute sessions to complete the Walk. Each child had a pencil and a clipboard to complete their adventure. I carried various measuring tools for them to use as needed.

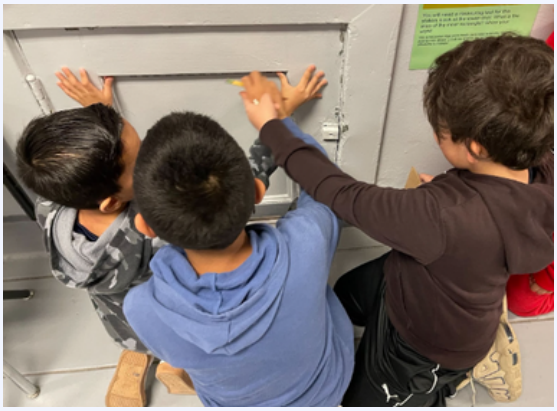
Once we began the Math Walk sessions, I became aware that the majority of our students had no concept of the relative size of units of measurement. They disagreed on whether their tape measure was measuring inches, feet, yards, or centimeters. They were often stumped on how to measure an object that was longer than the tool they were using to measure. This led to interesting discourse among the students. I attribute this confusion to their lack of hands-on measurement experience, and the way their texts represent different units as being the same size. Often, one student in the group would take charge, and guide the others. I resisted guiding them unless they reached an impasse, which happened infrequently.

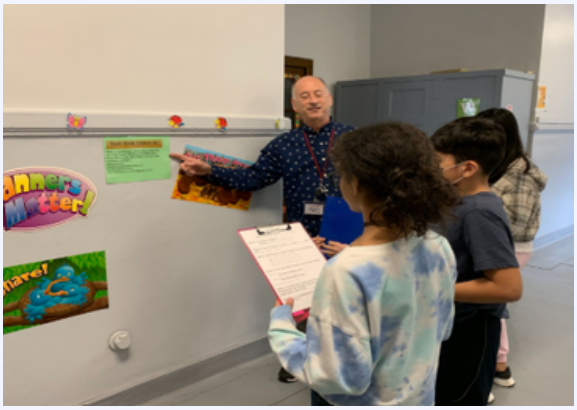



Students use ceiling tiles to estimate the length of the hallway. I learned this shortcut when I was an HVAC salesman.

Students working together to find the perimeter of a rectangle. It was interesting to compare how different groups solved the problem.

Students were asked to estimate how many stairs from the second to first floor, and then counted the actual amount.





As a Math interventionist, I see the Math Walk as a way to accomplish multiple goals:

1. Create opportunities for students to talk about Math in a low-pressure environment.
2. Encourage students to observe Math in the "real" world outside of the structured lesson.
3. Help students experience measurement and computation in authentic applications.
4. Enable students to cooperatively work with heterogenous groups of learners.
5. Allow students to move around the building while learning.
6. Let students review various math concepts and practices in preparation for state testing.
7. Identify students who need remedial instruction in specific areas.

I encourage my fellow instructors to look around your campus, and consider creating a similar Math experience for your students. If you are a classroom teacher, perhaps you could have a paraprofessional guide your groups, or reach out to students from a higher grade level. I found when I took more than five students at once, it got a bit unwieldy and students lost focus on the tasks. My most efficient groups had three or four students of varying ability and language skills. At higher grade levels, the Math Walk could be completed by students independently at their own pace.

Now you are ready to turn your campus into an engaging Math Walk excursion!

David R. Kleiner is a BSI Math Teacher at Clifton School 13 in Clifton, NJ. He is a Wipro Science Education Fellow at Montclair State University, and holds certifications in Elementary Education and Teaching Students with Disabilities.

# Leading a New School Year with Math, Expectations, and Norms:

*Setting the Tone from Day One*

**Estelle L. Maynard**

The start of a new school year offers a powerful opportunity to shape the direction of learning—not just for the first few weeks, but for the entire year. As a math educator, I've come to realize that the foundation I build in the first few days and weeks becomes the compass that guides everything that follows. It's not just about diving into the curriculum; it's about cultivating a classroom culture rooted in trust, clarity, consistency, and high expectations.

**1. Establishing Purpose in Math from the Start**

Too often, students begin the year unsure of what math is really for. On day one, I make it my mission to show students that math isn't just about solving problems on a worksheet—it's about thinking critically, solving real-world challenges, and building confidence. I like to introduce engaging, low-floor/high-ceiling tasks early on—problems that allow every student to participate, but also stretch their thinking.

I also talk about the "why" behind what we learn. Whether it's understanding ratios or solving equations, students need to know how math connects to their lives and futures. This builds investment early.

**2. Co-Creating Norms with Students**

Classroom norms shouldn't be a list on the wall I made over the summer—they should be lived expectations created together. I involve students in discussing what it takes to have a successful math learning  or any subject environment. We talk about:

- What it looks like to be respectful of each other's ideas.
- How we respond to mistakes—because in my room, mistakes are celebrated.
- How we listen, think, and speak like mathematicians.

This collaborative process gives students ownership and increases the likelihood they'll uphold those norms. We revisit them regularly and adjust when needed.

**3. Consistency with Expectations**

Clear expectations are everything. Students thrive when they know what's expected and that those expectations will be held consistently and fairly. I communicate routines for how we enter class, how we transition, how we ask for help, and how we show our work. I model these explicitly, practice them with students, and reinforce them every day. But I also believe in explaining why each expectation exists—it's not about control, it's about creating a space where everyone can learn without disruption.

**4. Building Math Confidence Early**

Math anxiety is real, and for many students, it shows up early. I counter that by creating early wins—tasks where students feel success and surprise themselves. I also intentionally build a culture where it's okay to say "I don't know yet." I model vulnerability, ask questions I genuinely don't have the answers to, and praise perseverance over speed.

**5. Using Student Voice and Data to Guide Instruction**

From the first week, I use informal assessments, student surveys, and classroom conversations to get a feel for where my students are academically and emotionally. I want to know:

- What are their strengths?
- What math experiences have shaped them?
- What goals do they have for this year?

This helps me tailor instruction and support so that no student gets left behind.

**6. Creating a Year-Long Vision**

Finally, I share with students what success looks like at the end of the year—and then work backwards. Whether it's preparing for state testing, reaching individual growth goals, or simply building mathematical thinking, I help them visualize their progress. I remind them often: we're not just learning math for today—we're building something all year long and a lifetime.

In conclusion, when I lead with intention—through clear expectations, collaborative norms, and purposeful math instruction—I'm not just teaching content. I'm shaping confident, curious learners who are ready to think, reason, and grow. The beginning of the year is our chance to set the tone for everything that follows. And when we lead strong from day one, we build momentum that lasts all year long or a life time.

## *Get involved with AMTNJ!*

*Looking to **reignite your passion** for teaching mathematics?*
*Getting more involved with AMTNJ is a great way to do just that!*

*We're looking for a few volunteers to join our organization and help us grow. We meet virtually a few times yearly to initiate various math events, programs, and publications. This is a great opportunity for teachers, consultants, administrators, professors, retirees, and others to get more involved, get inspired by collaborating with other passionate educators, and grow professionally.*

***Interested** in learning more? Fill out the **Google Form**.*
*We'd love to have you **join our team!***

# Pi, Pie, and Purpose:
## *A Delicious Math Lesson*

Mrs. Toni Leone, Math Teacher, Cliffside Park Middle School

"Mrs. Leone, when will we ever use this in life?" If you're a math teacher, you've probably heard this question at least once in your career. In middle school, I try to make concepts relevant by giving students real-life examples of how they might use the math I'm teaching. This year on Pi Day was no different. I wanted to do something more engaging than my usual generic pi lesson, so I introduced a project-based learning task: a pie-making contest that would culminate in a pie sale to benefit AMTNJ's Scholarship Fund.

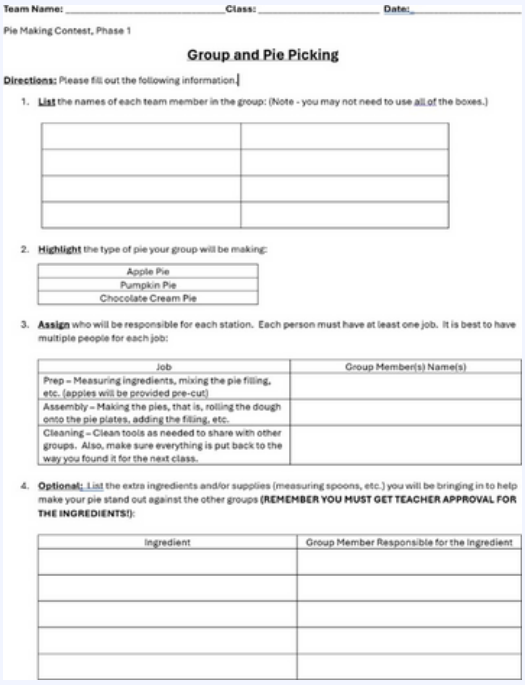
I don't know about you, but I have students who often don't realize they're using the math skills they've learned in everyday situations. During this task, students chose from base recipes for apple pie, chocolate cream pie, or pumpkin pie. They were encouraged to bring in "secret ingredients" to help their pies stand out to the judges.

Throughout the project, we explored a wide range of math concepts. We reviewed below-grade-level skills such as using measuring cups and spoons accurately, and tackled grade-level topics like calculating the unit price of a slice of pie to determine how much to charge to make a profit—or at least break-even—at the sale.

**Planning the Project:**

I introduced the activity a week before Pi Day, spending about 30 minutes outlining the task. We organized student groups of 5–8 (depending on the class size), selected pie styles, assigned roles within each group, and decided if any additional ingredients or tools would be used beyond the provided base recipe.

(See the figure to the right for the guided worksheet given to each group.)



**Team Name:** _____ **Class:** _____ **Date:** _____

Pie Making Contest, Phase 1

**Group and Pie Picking**

**Directions:** Please fill out the following information.

1. **List** the names of each team member in the group: (Note - you may not need to use all of the boxes.)

| | |
|---|---|
| | |
| | |
| | |

2. **Highlight** the type of pie your group will be making:

| |
|---|
| Apple Pie |
| Pumpkin Pie |
| Chocolate Cream Pie |

3. **Assign** who will be responsible for each station. Each person must have at least one job. It is best to have multiple people for each job:

| Job | Group Member(s) Name(s) |
|---|---|
| Prep – Measuring ingredients, mixing the pie filling, etc. (apples will be provided pre-cut) | |
| Assembly – Making the pies, that is, rolling the dough onto the pie plates, adding the filling, etc. | |
| Cleaning – Clean tools as needed to share with other groups. Also, make sure everything is put back to the way you found it for the next class. | |

4. **Optional:** List the extra ingredients and/or supplies (measuring spoons, etc.) you will be bringing in to help make your pie stand out against the other groups **(REMEMBER YOU MUST GET TEACHER APPROVAL FOR THE INGREDIENTS!)**:

| Ingredient | Group Member Responsible for the Ingredient |
|---|---|
| | |
| | |
| | |
| | |
| | |

**Pie Making Day:**

We scheduled this event a few days before Pi Day to accommodate the cafeteria staff's availability. Along with reinforcing students' math skills, I wanted to foster a stronger sense of community by encouraging them to interact with—and build relationships with—the people who prepare their meals each day. On this day, each class had a full class period (about 50 minutes) to prepare their pies for baking. The cafeteria staff kindly agreed to bake the pies on Pi Day, which was a tremendous help in bringing this activity to life. (Special shout-out to the cafeteria staff!)

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Each group had a station with the base ingredients. They were left to create on their own, while I, along with the kitchen staff and my supervisor, circled the room to help out.

Chocolate Cream Pie

Apple Pie

Pumpkin Pie

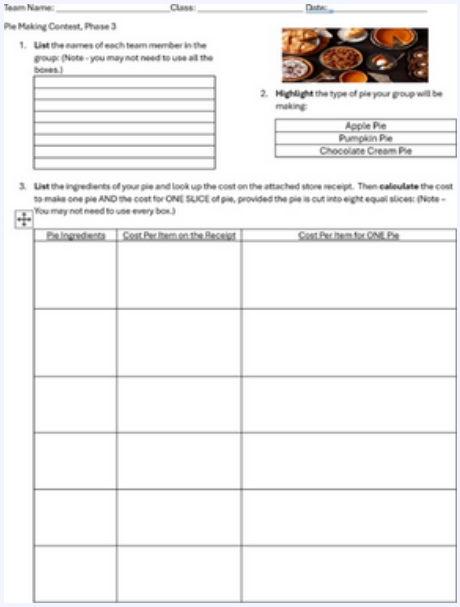
The final products, ready for baking and Pi Day. Yum!

**Mathematics in Action:**

After making the pies, the next class period(s) (about 50–80 minutes) was spent completing guided worksheets that helped students engage in conversations about the mathematics involved in the project. Each group received a grocery store receipt and was tasked with calculating their pie's total cost, price per pie, and price per slice.

They also had to prepare a conclusion about cost-effectiveness by researching prices for the same ingredients at a different store. Based on their findings, each group determined whether the ingredients should have been purchased elsewhere.

We wrapped up with a class discussion on cost-effectiveness and pricing strategy for the pie sale. One of the many thoughtful questions that came up was: Should we sell each style of pie for the same price? Why or why not? (See the figures below for the worksheet used during this part of the task.)



Team Name: _____ Class: _____ Date: _____

Pie Making Contest, Phase 3

1. **List** the names of each team member in the group: (Note - you may not need to use all the boxes.)

2. **Highlight** the type of pie your group will be making:

| |
|---|
| Apple Pie |
| Pumpkin Pie |
| Chocolate Cream Pie |

3. **List** the ingredients of your pie and look up the cost on the attached store receipt. Then **calculate** the cost to make one pie AND the cost for ONE SLICE of pie, provided the pie is cut into eight equal slices: (Note – You may not need to use every box.)

| Pie Ingredients | Cost Per Item on the Receipt | Cost Per Item for ONE Pie |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Total Price for One Pie:

Price Per Slice:

4. **Cost Effectiveness** - As a group choose and look up the cost for each of your ingredients at a different food store and compare the outcomes.

| Food Store | |
|---|---|

| Pie Ingredients | Cost Per Item on the Receipt | Cost Per Item for ONE Pie |
|---|---|---|
| | | |
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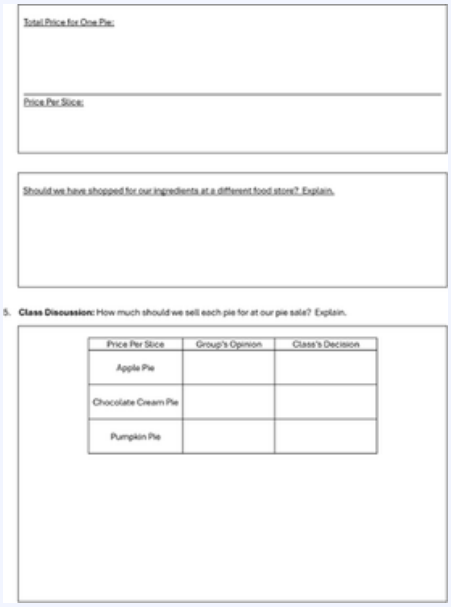


Total Price for One Pie:

Price Per Slice:

Should we have shopped for our ingredients at a different food store? Explain.

5. **Class Discussion:** How much should we sell each pie for at our pie sale? Explain.

| Price Per Slice | Group's Opinion | Class's Decision |
|---|---|---|
| Apple Pie | | |
| Chocolate Cream Pie | | |
| Pumpkin Pie | | |

**Contest Day Excitement:**

Students were excused from their last class of the day (50 minutes) to see their hard work and mathematical discussions come to life! We held three rounds—one for each style of pie. Each judge scored the pies based on overall appearance, taste, and overall impression.

The winners were revealed after all ballots were submitted and scored. Congratulations to **Algebra's Crust Crew, Chippy Chips, and Jamms**!

You're probably wondering what the prize was, right? So were they—I made them wait until the moment their group name was announced to find out.

Okay, enough suspense... Their prize was raffle tickets (I run a tricky tray–style raffle in class for extra credit and small prizes) and a movie lunch with juice and chips!

Students presented their pies to the judges.

Team Name: _____ Judge Name: _____

Pie Making Contest, Phase 4

| Sample each slice and choose the best score for each category: 0 (Yikes, no thanks) to 5 (flavor heaven!) | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 |
| **Overall appearance:**<br>• Texture & consistency of crust and/or topping<br>• Inside texture - runny, firm or juicy | | | | | | |
| **Taste:**<br>• Flavor strength & balance of ingredients<br>• Taste of crust<br>• Aftertaste | | | | | | |
| **Overall Impression:**<br>• Is the pie impressive?<br>• Level of Creativity | | | | | | |

Teams Total Score: _____

A judge struggles to decide who the winner will be.


The winners' board for the entire school to see!

**The Big Sale:**

After school, volunteers helped run the pie sale to raise money for AMTNJ's Scholarship Fund—and it was a big success! Cliffside Park Middle School students were proud to contribute to a cause that supports high school students aspiring to become future math teachers.

They were equally excited and touched when Ms. Vas, chair of the scholarship committee, visited to personally thank them for their hard work and generosity.

Pie, anyone? We decided to sell pumpkin pie for $1, apple pie for $2, and chocolate cream pie for $3. Some of the conversation included predictions that chocolate would be the most popular and pumpkin the least popular. (They were right.)

Ms. Vas and I, with some of my students,
receiving our certificates of gratitude from AMTNJ.

**Reflection and Lessons Learned:**

After the excitement of the pie sale, we spent the first 15–20 minutes of class the next day wrapping up the activity and reflecting on everything that had taken place during the contest and sale.

Students shared several takeaways: they were surprised by how strong their culinary skills turned out to be, they found following a recipe more challenging than expected, and they realized that there was much more math involved than they had anticipated.

Throughout this entire project-based learning task, I also made several observations—just as any teacher would—about what worked well, what needed adjusting, and how students were (or weren't) engaged.

Here are a few of my key takeaways:

1. **Fear of fractions:** Many students didn't know how to properly use measuring cups and spoons, largely due to uncertainty with fractional measurements.
2. **Following directions:** Some groups struggled to follow the step-by-step instructions. One group even skipped the recipe entirely and just mixed all the ingredients together.
3. **Life skills in action:** Reading a grocery receipt and realizing you don't need to include the entire cost of an item when calculating the cost of one pie. For example, the price of a 2-pound bag of powdered sugar is not the total cost needed to make a single pie. This skill helps in understanding unit pricing.
4. **Meaningful math conversations:** Determining how much to charge per slice sparked real debate and discussions, something that doesn't often happen outside a traditional math lesson.
5. **Sense of community:** Students felt proud to raise money for the AMTNJ Scholarship Fund and recognized the impact of their efforts.

This project-based task brought math out of the traditional, and often boring, textbook and into the real world, while giving students the opportunity to build community, develop life skills, and support a great cause. If anyone is interested in using or adapting this project for their own classroom, please feel free to **contact AMTNJ**; I will be sharing my worksheets with them.

## 2026 AMTNJ SCHOLARSHIP PROGRAM REVISED

*Joan J. Vas, Executive Coordinator, AMTNJ Scholarship*

The major change in the AMTNJ Scholarship Program, beginning in 2026, is that we now offer scholarships to qualifying graduating high school seniors in New Jersey who plan to major in MATHEMATICS EDUCATION, ELEMENTARY EDUCATION, or SPECIAL EDUCATION. The deadline for submitting applications is May 15, 2026. These awardees will be able to apply for renewal scholarships for -the next 3 years. This could amount to a four- year scholarship. Applications are now available at https://amtnj.org/scholarships/

The amount of the scholarships, each year, depends on the amount of funds available. The AMTNJ scholarship program is a 501-C3, tax deductible charitable program.

Donations can be made payable to AMTNJ Scholarship Program and mailed to:

**AMTNJ**
**PO Box 83**
**Adelphia, NJ 07710.**

Thank you to ALL AMTNJ members for your donations and continued support of the program.

Special thanks to the Scholarship Committee Members for their dedicated hard work:

President Kara Teehan,
Past President John Kerrigan,
Past President Lena Komitas,
Anna Maria Graff,
Julie Norflus Good and
Executive Coordinator
Joan J. Vas.

# 2025 AMTNJ Renewal Scholarship Awardees Update

*Joan J. Vas, Executive Coordinator, AMTNJ Scholarship*

***Vincent di Maio will be a sophomore at TCNJ in September, 2025. He stated the following:***
My name is Vincent di Maio, and I was first honored as a recipient of the AMTNJ scholarship for the 2024-2025 school year. I am currently a freshman attending The College of New Jersey and am a Mathematics - Secondary and Special Education major with a Music Minor on a five-year track for a master's degree. Receiving this scholarship is truly one of the most impactful and life-changing events that has ever happened to me. Not only do I have a monetary award that dampens one of life's most dreaded burdens, but I have the support and trust of such an outstanding organization that genuinely works with 110% effort to provide resources to those associated with mathematics education. Without exaggeration, I think about this scholarship on a daily basis and reflect on how fortunate I am to have financial support and resources that will back me up if I need it. Especially in my program which is additionally packed with more classes and requirements compared to most others. This scholarship has helped to combat the extra stress and I know that I will graduate in a better spot than I would've if I had not received the award. There are literally countless numbers of positive factors about receiving this scholarship. I could not be more proud to call myself an AMTNJ scholarship recipient and I sincerely recommend that anyone going into mathematics education should get involved with AMTNJ.
**AMTNJ has awarded Vincent $7,000 for the 2025-2026 school year.**

***Abigail Scheer will be a senior at The College of New Jersey (TCNJ) in September 2025.***
My name is Abigail Scheer, and I am currently a junior at The College of New Jersey. I was honored to receive a scholarship from the Association of Mathematics Teachers of New Jersey (AMTNJ) at the end of my senior year of high school in 2022. This scholarship has been so meaningful to me throughout my college journey. Looking back on my senior year of high school, I still remember how honored I felt when I received the award from AMTNJ. The scholarship has helped greatly with alleviating the financial strain of college. It also gave me the confidence and motivation I needed to pursue a career in secondary mathematics education. Over the past three years at TCNJ, this award has continued to inspire me to always try my best in my coursework and in all my academic and extracurricular activities. I've worked hard to be an engaged and dedicated student, always aiming to live up to the potential that AMTNJ saw in me. I can't believe that I'm going to be a senior in the fall at TCNJ and will be starting my student teaching career. I am so excited to start this new journey and learn everything I can from this experience. Being able to participate in student teaching will be an inspiring and memorable experience and AMTNJ is much to thank in helping me get there. I am especially grateful to my mentor teacher, Ms. Corasaniti from Pascack Valley High School, with whom I interned in 2022. Her guidance and encouragement shaped my passion for teaching. I am also deeply appreciative of my sponsor, Dr. Russo. Being recognized by AMTNJ was a true honor, and I am so thankful for the scholarship and the encouragement it has given me along the way.
**AMTNJ has awarded Abigail $7,000 for the 2025-2026 school year.**

***Annalise Caulfield will be a junior at John Carroll University in September 2025.***
Receiving the AMTNJ Scholarship award in 2023 has allowed my college experience to be transformational. As a result of this generous scholarship, I was able to attend a small, private school outside of Cleveland - John Carroll University. If you look up "Annalise Caulfield" a plethora of campus involvements, ranging from varsity lacrosse to research experiences, will pop up. This has only been possible because of the financial support that AMTNJ has provided me over the past 2 years. I can confidently say that I would not be the woman I am today if I was not afforded these opportunities as a result of this scholarship.
**AMTNJ has awarded Annalise $7,000 for the 2025-2026 school year.**

**SPECIAL MESSAGE FROM AN AWARDEE:**

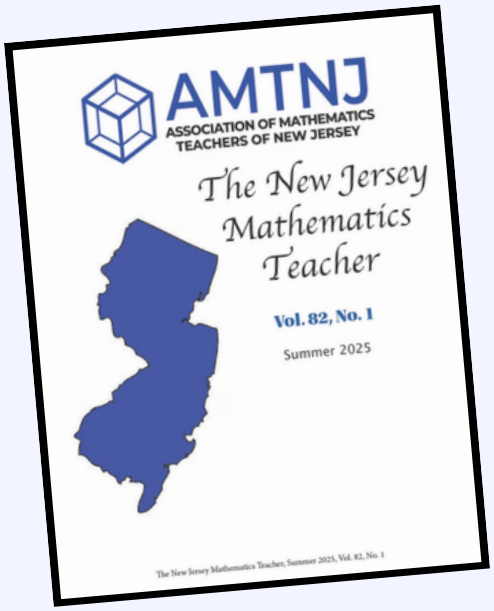
*To the Board of Trustees and all associated with AMTNJ,*

*I would once again like to convey how grateful I am for awarding me another year of the AMTNJ scholarship. I am so happy that my passion for mathematics and education is recognized by an organization that combines the two and continues to support me as I enter the career of my dreams. This award is dampening such an extreme financial burden while also providing me with strong connections and resources, one of the many reasons I am proud to be an AMTNJ student member. I can not thank you enough for supporting and believing in me and I continue to look forward to future communication over the next few years. Please, if there is anything I can ever do for AMTNJ, do not hesitate to reach out. Enjoy the rest of your summer!*

*With extreme sincerity,*

*Vincent di Maio*
*Proud AMTNJ Scholarship Recipient*

# Read the latest AMTNJ Journal!




- ***Editorial: Summer 2025***
  *Jay Schiffman, Ph.D., Editor-in-Chief*
- ***Emotions as Catalysts for Beliefs in Math Class***
  *Pam Brett, Ed.D.*
- ***Symptoms, Causes, and Consequences of Math Anxiety and Its Potential Remedies***
  *Harman P. Aryal, Ph.D.*
- ***High School Math in Action: A Trip to Bushkill Falls to Experience the Power of Indirect Trigonometric Measurement***
  *Jose Rodrigues, Ed.M. and Nirmala Ramberran*
- ***Proof of Why the Slide and Divide Method Works and its Modified Version Suitable for Educational Purposes***
  *Ivan Retamoso, Ph.D.*
- ***Using Excel to Learn Statistics through Project-based Learning***
  *Jae Ki Lee, Ph.D.,, Sun Young Ban, Ph.D., and Serine Ndiaye Ed.D.*
- ***Exploring Quantitative Reasoning Skills in School Mathematics***
  *Bhesh Raj Mainali, Ph.D., and Deependra Budhathoki, Ph.D.,*

UPDATE

## AMTNJ Newsletter Submissions


*Want to share something with the AMTNJ community? We welcome your submissions for the next newsletter!*

*To ensure a smooth process, please follow these guidelines:*

- **Submission Deadline:** *The deadline for submissions for the the next newsletter is December 22, 2025. Requests for articles will start November 1st*
- **Topic**: *Please ensure your article is relevant to the field of mathematics and education.*
- **Word Count**: *Articles should be between 500 and 1,000 words.*
- **Format**: *All articles must be submitted as a Google Doc or as plain text directly in the body of an email. Please do not submit articles as a PDF.*
- **Images**: *If you have any images to include, please send them as separate image files (JPEG, PNG, etc.). Do not embed images within your text document. Please only submit images that you have the right to use. If an image is not your own, please provide proper credit.*
- **Author Bio**: *You may include a brief author bio of 50 words or less. This is a great way to introduce yourself to our readers.*

*Email your submission to* ***efedina@howell.k12.nj.us***

# Upcoming AMTNJ Conferences -
## *You don't want to miss!*


## Fall PreK–5 Conference

- Friday, November 14, 2025
- **Location:**

  Brookdale Community College

  Lincroft, NJ
- **Register here**
- **Conference Program**

## Fall Grades 6-12 Conference

- Friday, November 21, 2025
- **Location:**

  Brookdale Community College

  Lincroft, NJ
- **Register here**
- **Conference Program**