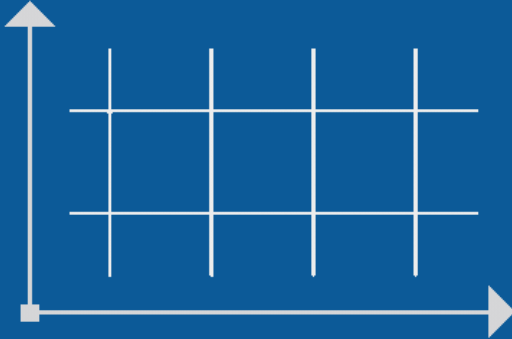




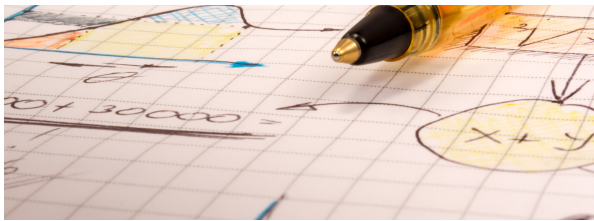
CSI: CALCULUS/STATISTICS INSIDER

OFFICIAL NEWSLETTER OF THE GEORGIA ASSOCIATION OF ADVANCED PLACEMENT MATH TEACHERS

HIGHLIGHTS

- AP Resources
 - AP Day: Ideas for Pre & Post
 - Math and ChatGPT
 - AP Calculus Competition
 - John Neff Award
 - Mark Your Calendar
- 

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Henry Oglesby, Bobby Stecher, and
Lisa Stevenson



**JOIN US IN-PERSON AT GMC
ROCK EAGLE
FRIDAY, OCT. 20, 2023**

<https://www.gctm.org/gmc>

AP RESOURCES

to get to the finish line.

- 1) AP Classroom videos
- 2) AP Classroom practice exams
- 3) Quizziz
- 4) Korpiworld
- 5) TI in Focus



Check out the
AP Calculus Flash Cards
created by Dennis Wilson
on ChatGPT at
FLASH



AP DAY

ideas for
Pre & Post



#1

The big AP exam day with Leibniz, Newton, and L'Hospital

The dramatic, controversial stories concerning mathematicians create a fun, short deterrent from the mundane while teaching calculus. The dispute between Gottfried Leibniz and Sir Isaac Newton is a story many high school students find fascinating and most do not know about. Most students have heard of Sir Isaac Newton but have never heard of Leibniz and most certainly don't know about the calculus war. Throughout the school year, the emphasis placed on how both men discovered calculus simultaneously in different parts of the world draws students into the world of mathematicians and their career challenges.

Moreover, as if the calculus wars were not enough, at some point, we introduce L'Hopital who basically bought the rights to the name of the rule from one of the members of the famous squabbling Bernoulli family. The drama, the stories, the feuds, the drawn-out controversies, and the political jockeying of positions are enough to entertain students throughout the year during a rather rigorous course. At the end and with the approaching big exam day, allow your students to enjoy the sweet flavors of the year with a taste of Leibniz cookies and Newton fig bars, symbolizing Leibniz and Newton together at last, and if your students need emergency-type relief, supply them with L'Hospital chocolate bars.

#2

Suggested Reading!

The Calculus of Friendship
by Steven Strogatz

In a life-long career of teaching many students, we may possibly manage to reach a few students beyond their high school years. The Calculus of Friendship is the story of a teacher and his former high school student that begin a lifelong friendship through letters connecting their love of calculus. The friendship grows through their respective life changes and morphs into a meaningful relationship beyond calculus. You will be touched, and fascinated by the letters, stories, friendship, and math.

Feel free to leave a note on our Facebook page about your thoughts concerning this book.

#3

Math and the Arts

Looking for something to do after the AP exams? How about a little bit of calculus and theatre?

Check out Calculus: The Musical
now on demand

<https://matheatre.com/on-demand/>



Math and ChatGPT

The dialogue concerning ChatGPT in the educational world has been interesting and mostly geared toward the liberal arts side of education. However, more and more conversation concerning the math classroom and ChatGPT is catching up. At the time of writing this article, I entered a trigonometric identity into ChatGPT and asked the bot to prove the identity and within seconds the proof was available. I then asked ChatGPT to evaluate a triple integral in cylindrical coordinates and the bot again provided the worked-out solution in a matter of seconds. I also asked ChatGPT to create a lesson plan for teaching The Fundamental Theorem of Calculus. I also asked for a college recommendation letter based on a specific personality type and personal encounters with a student. This AI platform is changing the educational world and so grappling with how to handle this platform in the classroom is a necessity. So, I asked ChatGPT how math teachers should handle the use of ChatGPT in the classroom and this is the response:

"ChatGPT can be a useful tool for students to use in the classroom to get answers to specific math questions or to explore mathematical concepts in a conversational format. However, it's important for math teachers to provide guidance on how to use ChatGPT effectively and appropriately in the classroom.

Here are some tips for math teachers to handle the use of ChatGPT in the classroom:

- Explain the limitations of ChatGPT: It's important for students to understand that ChatGPT is an AI language model that can be useful for answering specific math questions, but it is not a replacement for their own mathematical reasoning and problem-solving skills.
- Encourage critical thinking: Math teachers should encourage students to think critically about the answers provided by ChatGPT and to verify them using their own mathematical knowledge and problem-solving skills. Students should also be encouraged to ask follow-up questions to clarify any uncertainties and to explore alternative methods of solving problems.
- Use ChatGPT to facilitate class discussions: Math teachers can use ChatGPT to facilitate class discussions about specific math concepts or to provide examples of real-world applications of math. This can help students to see how math is used in a practical context and to build their problem-solving skills.
- Set clear guidelines for the use of ChatGPT: Math teachers should establish clear guidelines for the use of ChatGPT in the classroom, including when it is appropriate to use it and how it should be used. Teachers may also want to discuss issues related to plagiarism and academic integrity and emphasize the importance of using ChatGPT as a tool to support learning rather than a shortcut to avoid doing the work.

Overall, the use of ChatGPT in the classroom can be a valuable tool to support students' learning and problem-solving skills, as long as it is used appropriately and in conjunction with other learning resources and methods."

Share your thoughts and concerns about ChatGPT in the math classroom on our Facebook page.



Calculus Competition

April 22, 2023

Having been postponed in 2020 due to the pandemic, GA²PMT was proud to finally host our inaugural Calculus Competition on Saturday, April 22nd at four sites across the state. With 23 school competing, the event included an individual test and team round of ciphering. Awards were given to individuals and teams at the state and site levels.

Participating Schools

Columbus Site	Division 1	Columbus High School
	Division 2	Landmark Christian
Georgia Southern Site	Division 1	Bulloch Academy
		Effingham College & Career Academy
		Glynn Academy
	Hephzibah High School	
Division 2	Augusta Prep	
	Screven County High School	
	Statesboro High School	
Rockdale Site	Division 1	Dunwoody High School
		Grayson High School
		Newton College & Career Academy
		North Atlanta High School
		Rockdale Magnet School
		Soli Deo Gloria Home Education
	Woodstock High School	
	Division 2	Chestatee High School
		McIntosh High School
		Ola High School
Paideia School		
Stratford Academy		
Tift Site	Division 1	Lowndes County High School
		Tift County High School

Results



State Team Winners



- 1st Place** - Dunwoody High School
- 2nd Place** - Atlanta High School
- 3rd Place** - Rockdale Magnet School



Site Team Winners



- Rockdale** - Dunwoody High School
- Georgia Southern** - Effingham Academy
- Columbus** - Columbus High School
- Tift County** - Lowndes High School

Thanks to the following people!

Storie Atkins
Columbus Site Director and
President of GA²PMT

Chuck Garner
Rockdale Site Director and
Competition Co-Author

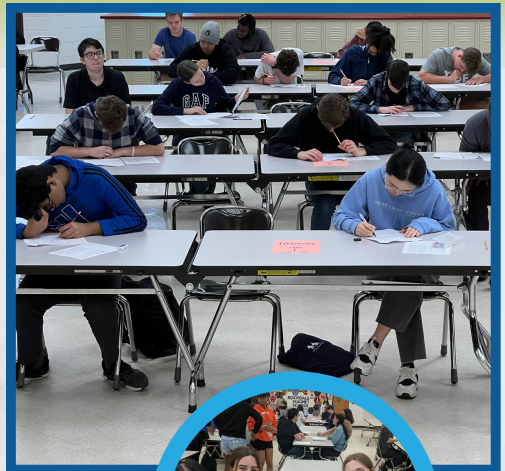
Chasen Smith
Georgia Southern Site Director
and Scoring Programmer

Gloria Beard
Tift Site Director

Marshall Ransom
Competition Co-Author and
President-Elect of GA²PMT

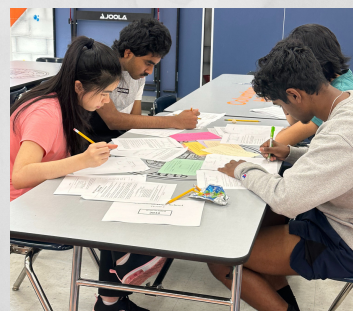
Calculus Competition April 22, 2023

Event Highlights



"I had a great time working with my team to try and solve complex problems. The group test portion was by far my favorite portion of the contest. It gave me an opportunity to spend time with my friends and try and solve complex problems together. It was very chaotic, but the chaos is what made it enjoyable!"

"The AP Calculus Tournament was very enjoyable and challenging. It was unique from other math tournaments I have attended since it was based purely on calculus. The problems made me apply what I learned from the classroom and go a little beyond by having questions with more steps and nuance."



"I would definitely do it again next year!"

"My favorite question was one in the group work section that referenced Paul Erdős and his enthusiasm for coffee and theorems, prompting me to want to learn more about the famous mathematician."

GA²PMT

Georgia Association of Advanced Placement Math Teachers

The John Neff AP Teaching Award

While you are waiting for you students to finish their AP exam this week, take some time to send in a nomination for the John Neff Award given by GA²PMT. This is an award that is usually given annually to recognize the contributions of an AP mathematics teacher in Georgia.

To qualify, an educator must:

- have taught AP Calculus and/or Statistics for at least five years,
- have contributed to the teaching of AP mathematics beyond their classroom, and
- demonstrates excellent teaching within their classroom.

If you know a teacher deserving of this award, please submit your nominations at [GA²PMT John Neff Nomination Form](#).



2019 WINNER
JEAN LINNER



2022 WINNER
DEBBIE KOHLER

JOHN NEFF AWARD

GA²PMT

Georgia Association of Advanced Placement Math Teachers

- ✓ **Friday, October 20, 2023 - GA²PMT Sessions and Business Meeting at GMC, Rock Eagle**
- ✓ **Saturday, April 22, 2024 - GA²PMT hosted Calculus Competition**

**MARK
YOUR
CALENDAR**