# NOTES $\downarrow$ NERDS 

The official newsletter of the Math Collaborative


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THE MATH COLLABORATIVE MISSION:
The CRMC's mission is to improve math education for all students in our area by developing teacher leaders through deepening their content knowledge, developing best practices, and using available resources to improve student outcomes and experiences.

## TO DO THIS, WE MUST:

Provide quality teacher growth experiences through continuous collaboration - in and out of the classrooms - with a focus on teachers' needs in support of student growth.

## DIRECTOR'S NOTES

CONTRIBUTED BY PETER ANDERSON, CRMC DIRECTOR

## BUYING APESTAURANT

There is a scene from the sitcom Ted Lasso where Rebecca and Keeley try to help the team manager, Nathan, get a prime table at a restaurant for his parents' anniversary. Rebecca, the rich team owner, begins by saying, "No problem, tell me which restaurant, and l'll buy the restaurant." Abruptly, Keeley said, "No, you can't do that. You know what they say: buy a man a table, and he eats for a day. Teach him to be assertive, and he eats at all the best tables."

At this time of year, teachers tend to buy restaurants for our students to have a table. We want them to be successful and do well on the tests. As a result, we wind up feeding them for that one test, one skill, or one type of problem to get through the material.

When we stop to think about it, what we really want to do is to help them become mathematicians.
Let's take a quick quiz!
How do you teach your students to solve this:


How we as teachers answer this question reveals whether we are table buyers or assertiveness trainers. Are we teaching kids to solve a particular problem, or are we building the capability to solve all sorts of problems? In effect, are we creating mathematicians?

Consider a few more questions:

- Do your students seem to forget what you taught them the week before or the day before?
- Do you have to keep reteaching the same material over and over?

If you answer yes to either of these questions, you are buying the restaurant for the table for the student.

## DIRECTOR'S NOTES

CONTRIBUTED BY PETER ANDERSON, CRMC DIRECTOR

Even the best teachers fall into the trap of focusing on the skill that "feeds" a student for a test, a quiz, or an end-of-course test (this teacher has fallen into this trap.) How do we move students to become mathematicians?

The answer is easy, but the work is hard. Teachers must look at each problem as an opportunity to teach the mathematics building on what the students know.

Let's look back at the proportion problem.

Students can learn a method to solve problems quickly and efficiently (but they can also easily forget that method). If the students see the proportion as an equation, they are set up to solve equations, which will carry them into algebra and beyond.

You see, the work is harder, and it takes time. But by allowing students to develop answers to those questions, you are giving them a gift that will last a lifetime. Ultimately, you'll be giving yourself a gift. Rather than a classroom full of table sitters, you'll have a classroom full of assertive mathematicians.

The theme of the Ted Lasso episode I refer to is redemption. We might start down a path that is unproductive or unsatisfying, but there is an opportunity to change course. Teachers are already working hard! Consider the change for the student. Your perception of mathematics and your students will grow.

You are appreciated more than you know. Keep doing amazing things!
Happy Maths,


## UPCOMING PROFESSIONAL LEARNING SESSIONS

Grades K-5

Wednesday, May 8th and again on
Tuesday, May 14th
Connecting K-5
Exploring Progressions: How Language Impacts Mathematical Thinking

Morning Session: 8:00-11:00AM
It's All In the Details
This session will focus on counting and place value. and the progression from grade $K$ to grade 5.

Afternoon Session: 12:00-3:00PM Big Ideas
How details affect the big idea.
This session will focus on mathematical operations and how they progress from grade K to grade 5 .

MAY ETH, CLICK HERE OR SCAN THE QR BELOW TO REGISTER TODAY


## MATH MASTERS TOURNAMENT - RECAP



On Saturday, March 16th, the Mathematics Collaborative at CSU hosted the 12th annual Math Masters Competition at Frank Brown Hall. Over 100 middle school students representing 16 teams battled to earn digits of Pi! The teams received 12 challenges and had 2 hours and 45 minutes to earn as many digits of Pi as possible! The team with the most digits earned was announced as the 2024 winner.

The teams earned a combined 258 digits of Pi during the competition for presenting the solutions to the challenges and explaining the reasoning behind the solutions. Just two points separated the top three teams!

Richard's Middle School of Columbus, Georgia, took top honors (33 digits), edging out two teams from Pizitz Middle School from Vestavia Hills near Birmingham (32 and 31 digits)! The rest of the field was in close pursuit of the leaders.


CHAMPIONS - RICHARDS MIDDLE SCHOOL, COLUMBUS, GA


RUNNER-UP -
PIZITZ MIDDLE SCHOOL TEAM GAMMA, VESTAVIA HILLS, AL


SECOND RUNNER-UPPIZITZ MIDDLE SCHOOL TEAM BETA, VESTAVIA HILLS, AL

## MATH MASTERS TOURNAMENT - RECAP CONTINUED...

Ultimately, all teams are winners because of the effort each put into working together, solving challenges, and learning some mathematics in an exciting environment. During the competition, students recorded their thoughts, struggles, and successes on a spirit stick that they brought to the awards ceremony to demonstrate that from their efforts today- they can build a bridge to the future!


BUILDING A BRIDGE TO THE FUTURE - STUDENTS BUILD A BRIDGE WITH SPIRIT STICKS THEY DESIGNED DURING THE COMPETITION.


## MATH MASTERS TOURNAMENT - RECAP CONTINUED...



STUDENTS PRESENTING SOLUTIONS TO MASTER TEACHERS.


MATH-A-SAURS WELCOMED STUDENTS TO THE COMPETITION AND GUIDED THEM AROUND FRANK BROWN HALL. WITH MATH YOU SOAR!!


STUDENTS ARE THE TRUE WINNERS AS THEY STRIVE TO BECOME THE SCHOLARS OF TOMORROW!


A special thanks to the 24 Master Teachers who evaluated and supported the young
mathematicians. Several of the Master Teachers were our own CSU Students and Faculty, as well as educators from across the State of Georgia.

## COOL TEACHER STUFF

The following two pages are challenges that were presented to middle school students during the Math Masters Competition.

Give them a try! If you are interested in the solutions, contact Peter Anderson directly at anderson_peter2@columbusstate.edu.

If you like these challenges, there are more on the CRMC website:
https://www.columbusstate.edu/crmc/events.php


- THIS GAME INCLUDES A GRID AND A SEQUENCE OF NUMBERS ARRANGED IN ASCENDING ORDER: THE OPERANDS.
- MATCH THE OPERANDS ‘TWO-BY-TWO’ SO THAT THEIR ADDITION EQUALS A GRID NUMBER AND THEIR MULTIPLICATION EQUALS ANOTHER GRID NUMBER.
- ONCE THIS IS DONE, THIS PAIR OF OPERANDS AND GRID NUMBERS ARE NOT USED AGAIN.


## - SEE NEXT PAGE

QUICKONOR GAME

LEVEL ONE
GRID

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## PROBLEM SCORING:

 2 POINTSThere once was a speedy hare who bragged about how fast he could run. Tired of hearing him boast, Slow and Steady, the tortoise, challenged him to a race. All the animals in the forest gathered to watch.

Hare ran down the road for a while and then paused to rest. He looked back at Slow and Steady and cried out, "How do you expect to win this race when you are walking along at your slow, slow pace?"

Hare stretched himself out alongside the road and fell asleep, thinking, "There is plenty of time to relax." Slow and Steady walked and walked. He never, ever stopped until he came to the finish line.

The animals who were watching cheered so loudly for Tortoise, they woke up Hare. Hare stretched and yawned and began to run again, but it was too late. Tortoise was over the line. After that, Hare always reminded himself, "Don't brag about your lightning pace, for Slow and Steady wins the race!"

## Your Task:

Draw a graph that represents the race between the tortoise and the hare. Be sure to label the parts of your graph.


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> Math Magic Going! Pledge your Support!

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