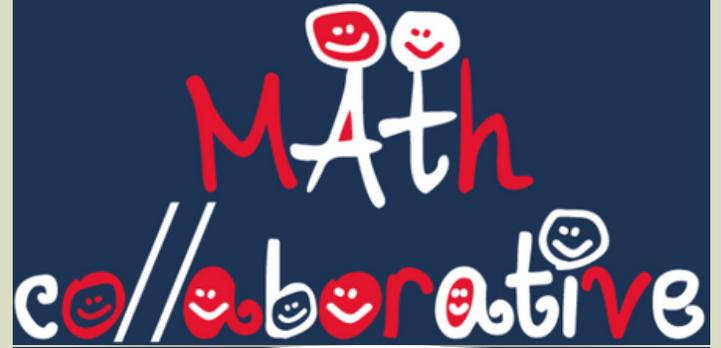


# Notes 2 Nerds

March 8, 2023



Teacher Development and  
Consulting

## In This Issue:

- [Director's Notes: 'Three and a Smidge - Making Meaning'](#)
- [Professional Learning and Cool Teacher Stuff](#)
- [Math Masters Welcome!](#)
- [Building Thinking Classroom Cohort](#)
- [Contact Us](#)

## Upcoming Events:

HAPPY PI DAY! MARCH 14, 2023

- [Professional Development: Grades 6-8, March 14, 2023](#)
- [Professional Development: Grades K-2, March 30, 2023](#)

You are asking - we are  
answering!...  
(click here to give us your  
feedback):

Saturday.  
Professional  
Development Survey.

## Follow Us:



# Director's Notes



## THREE AND A SMIDGE - MAKING MEANING



I worked with an Algebra Two class as they began to learn about the unit circle a few weeks ago. The lesson involved students standing in a circle around me. The students distributed themselves randomly around the circle—a length of rope (the radius) tightened our student circle and gave it definition. I stood at the center, holding the rope so the students were all the same distance away from the center. I innocently asked, "How many lengths of the rope does it take to travel the circle's circumference?" I got all kinds of answers from three, to seven, to nine.

Now curious, the students wanted to test and see. So I handed them the rope to form the radius. They passed it around the circle to measure where they stood at the edge of the circle—one radius, two radii, and then three. But I stopped them just shy of halfway around the circle. The third length count of the radius rope did not quite make it halfway!

They tried to stretch the rope - I would not let them. "What is going on with the measurement?," I asked. With certainty, the class told me it should work evenly. There must have been an error in measuring. It shouldn't be random. They assured me it should be exactly three!

They measured again, this time more carefully. Again, it was three radii - with a smidge missing! I asked them, "How many radii will it take to complete the rest of the circumference of the circle?" They assured me it would be six. We continued to count the radii to complete the circle.

Four radii. Five radii. Six radii. But now, the students were even farther from completing the circumference than they were at the halfway mark!

It took a minute....then one of the students told me it would be three and a little smidge more for half a circle and then three and a little more for the other half.

Hmm. I asked the class if students had any experience with the number three and a smidge more? They eventually told me the value was 3.14. They were making the connection that it was the value of Pi. Soon we determined that it would take two Pi radiuses to travel the circle's circumference. We were ready to rock and roll the unit circle and we did it in short order assigning angle measures in radians! At the end of class, they asked if they could see how many diameters it would take to go around a circle.

Do you want to guess what they discovered? - Three and a smidge! or Pi diameters to go around the circle's circumference!

It made my heart smile. Goodness, I do love math! These are bright students! Had they been taught these facts before Algebra Two? I am sure they had. I also wonder if their experience in math has been "sit and get" versus making meaning? How do you allow your students to make meaning?

Happy Maths,

Pete

Happy Pi Day!  
March 14, 2023



# Professional Learning and Cool Teacher Stuff

## Fun $\pi$ Day Activities for Upper Elementary through High School:

### Finding Pi

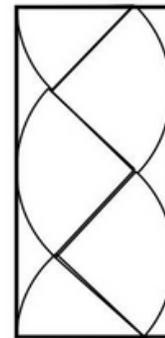
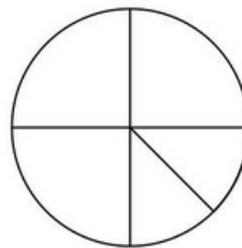
Many students think of Pi as a number they should memorize, when the most important idea for students to learn is that Pi is a very cool relationship that exists inside all circles in the world. In this task, students will find that relationship themselves, through cutting and folding, and be asked to reflect on it.

#### Materials

- Paper
- Compass/something to make a circle with a radius between 2 and 4 inches
- Scissors
- Glue

#### Task Instructions

1. Construct a circle with a radius of 2 - 4 inches
2. Fold the circle into quarters and cut along the folds
3. Cut one of the quarters into eighths, two equal parts
4. Glue the pieces onto a piece of paper and draw the rectangle
5. The rectangle, ABCD has approximately the same area as the circle.
6. Calculate the area of rectangle ABCD
7. Construct another circle congruent to your first circle
8. Fold the circle into eighths, or eight equal sectors
9. Fit the circle pieces into a rectangle
10. Calculate the approximate area by determining the area of the rectangle.
11. Repeat the steps for a congruent circle cut into 16 sectors
12. AB is approximately half of the circumference,  $2\pi r$ , why? This means  $AB = \pi r$
13. Why does  $BC = r$ ?
14. The area of rectangle ABCD is  
$$\text{Area ABCD} = AB \times BC = \pi r \times r = \pi r^2$$



Happy Pi Day!  
March 14, 2023



# Professional Learning and Cool Teacher Stuff



Follow this link for tips on how  
to make a homemade  
spirograph!

<https://www.pinkstripeysocks.com/2019/02/diy-homemade-spirograph.html>

**Drum roll, please....**

**Here is a spreadsheet with more  
FUN Pi Day activities for your classroom. If you  
would like to add more, send me a message!  
anderson\_peter2@columbusstate.edu**

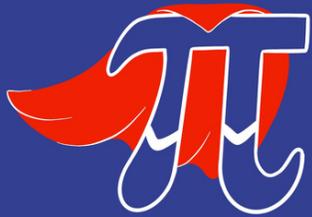
Not Your Everyday  
Pi Day Ideas  
and Lessons

**Happy Pi Day!**  
**March 14, 2023**

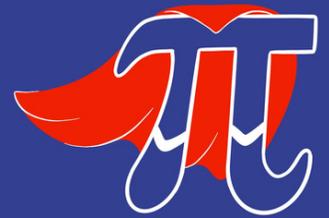


# Math Masters 2023

Saturday, March 11, 2023



**GET  
READY**



Faith Middle School

Veterans Memorial

St. Luke

Eddy Middle School

Arnold Middle School

Russell County Middle School

East Columbus Magnet Academy

Richards Middle School

Harris County

Phenix City Intermediate School

Blackmon Road

**Thanks for Registering**

**See you Saturday!**



Celebrate Pi Day  
With Us!



**REGISTRATION  
OPEN NOW!**

**WHEN: TUESDAY,  
MARCH 14, 2023**

8:30 AM TO 3:00 PM  
@ CSU, FRANK BROWN HALL

USE THE LINK OR SCAN  
THE QR CODE TO REGISTER  
TODAY:

[HTTPS://COLUMBUSSTATE.L  
IBCAL.COM/EVENT/10223178](https://columbusstate.libcal.com/event/10223178)

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@CollabMath



## Teaching Through Tasks

- This is a different strategy than teaching TO tasks.
- Learn how to incorporate tasks at the start of a unit instead of at the end.
- Learn about places to find rich tasks that will engage your students.
- **Even if you are not currently teaching Grades 6-8, this workshop will engage teachers of all grades.**





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@mathcollab



@CollabMath



# REGISTRATION OPEN NOW!

WHEN:

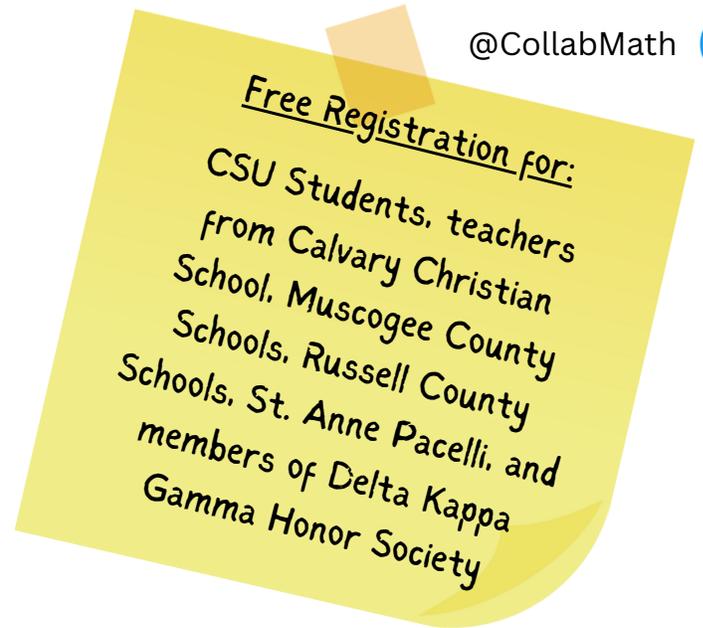
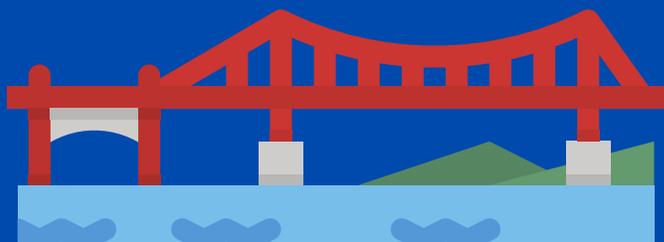
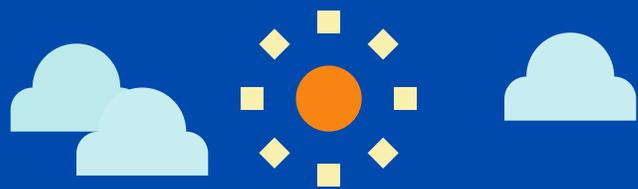
TUESDAY,

MARCH 30, 2023

@ CSU, FRANK BROWN HALL

USE THE LINK OR SCAN  
THE QR CODE BELOW TO  
REGISTER TODAY:

[HTTPS://COLUMBUSSTATE.L  
IBCAL.COM/EVENT/10242024](https://columbusstate.libcal.com/event/10242024)



## Building a Bridge Between Math & Literacy

- Explore 'not-so-typical' math literature;
- Investigate lessons and activities that deepen understanding;
- Bridge connections with real-world examples;
- Delve into literacy strategies that will assist in Math.

Together, we can explore Math integration within different subject areas to build math investigators!

# BUILDING THINKING CLASSROOMS COHORT

Are the things you are doing in class not connecting with students?

Would you like to engage your students more deeply?

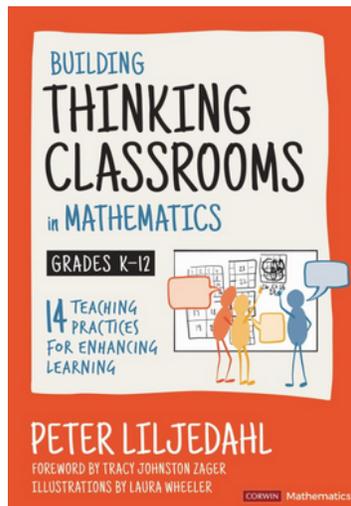
Are you ready for a change that works?  
*(I know you have heard this before.)*

So, kick the tires and see if the promise fits.

It costs nothing but your willingness to participate.

We meet about once a month, after school, at Frank Brown Hall. We develop and share lessons for teaching your subject. We are looking to grow our Building Thinking Classroom Cohort with High School and Middle School teachers.

## Resource Link



If you are interested,  
contact Peter Anderson:  
[anderson\\_peter2@columbusstate.edu](mailto:anderson_peter2@columbusstate.edu)

Happy Pi Day!  
March 14, 2023





Click here to read more about our website:

[Columbus Regional  
Mathematics Collaborative  
Columbus State University](#)

Click the icons below to follow us on social media!



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