

October 2023



Kansas Association of Teachers of Mathematics

Bulletin

Jo Boaler is coming to the KATM Conference!!!

Kansas Association of Teachers of Mathematics

MATHEMATICAL MINDSETS

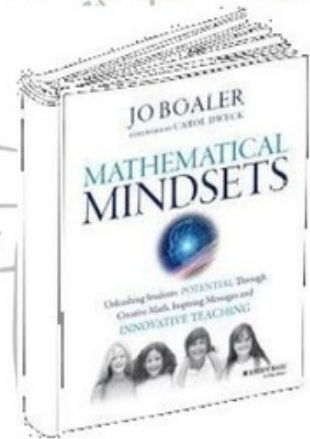
Keynote Speaker
Jo Boaler

MARCH 25, 2024

10:00 – 3:00 PM

SEWARD COUNTY COMMUNITY COLLEGE

LIBERAL, KS



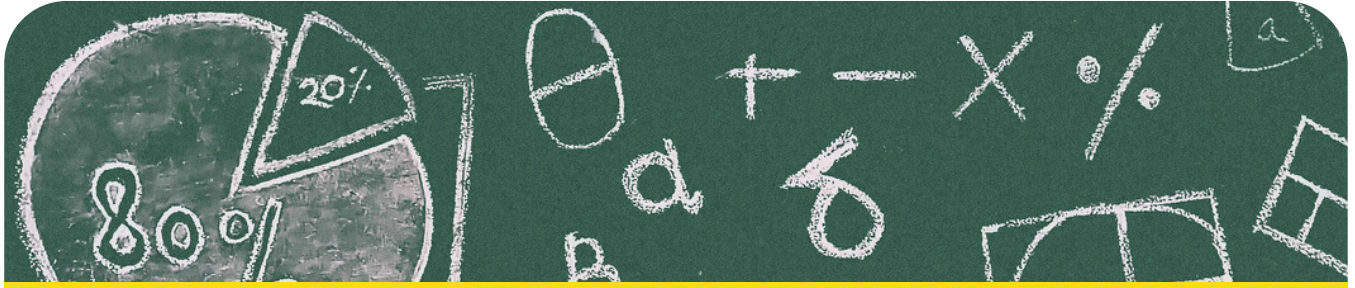
**Conference Proposals
Due: February 5, 2024**



*Save the
Date!*

For more information contact
danielminde@katm.org

bit.ly/katm2023proposal



President's Message

KATM members,

I can't believe we are already having parent teacher conferences and nearing the end of 2023!

The KATM Board continues to strive to be an organization that can help support Kansas math teachers to network with one another and continuously learn more about effective math teaching and learning practices. KATM co-hosted a summer professional development session around Building Thinking Classrooms with Peter Liljedahl. We got to experience evidence-based Thinking Classrooms and discuss with teachers from across the state and neighboring states about how to implement these highly effective strategies in our classrooms.

After the summer session, the KATM conference committee were invigorated by the excitement around this training and we wanted to keep the momentum in Kansas moving! On that note, we are beyond excited to announce that Jo Boaler will be the keynote speaker at our 2024 Annual Conference being held on March 25 at Seward County Community College in Liberal, KS. We are excited to offer this one-day, in-person opportunity for Kansas teachers to gather and talk about all things math, to continuously improve our teaching and our student learning. Please see the link later in the Bulletin for the session presentation proposal - as exciting as it is to have Jo Boaler be the keynote at our conference, the breakout sessions allow Kansas teachers to highlight and share the amazing work they are doing daily in Kansas classrooms! Please plan to attend and present!

Another way we want to connect is through sharing your work in print! KATM is launching our first Annual Special Issue of KATM's Journal for Kansas Math Teachers. This publication is intended for PK-12 mathematics educators in Kansas. Submissions should target instruction of the content and practices of the Kansas Mathematics Standards to diverse student populations. In addition to materials focused directly on teaching mathematics, authors may consider material that would assist teachers as they engage parents and families to support students' mathematical learning. There are many options to share your experiences, please check out the [article submission form](#) for more information. Submissions will be collected throughout the winter and publication will be in Summer 2024.

The KATM board is excited to continue to support Kansas math teacher collaborations and networks with these conferences and new journal opportunities.

As always, thank you for all you do to support math teaching and learning in our Kansas schools!

Julie Thiele
KATM President



From our scholarship recipient

I heard about Building Thinking Classrooms (BTC) from my mother, who is also a math teacher, about 5 years ago. She described how it had transformed her teaching and I finally got to experience it in March at the annual KATM conference. I was feeling burnt out after a difficult year, so I decided to try the first three practices in my classroom shortly after this conference. The change I saw was astounding. I saw students ignoring their phones, talking about math and I felt inspired about teaching again. This change led me to buy the BTC book and register for the BTC workshop that KATM sponsored in July. I was able to attend thanks to the Margie Hill New Teacher Scholarship offered by KATM. I spent the summer excited about BTC. I challenged myself to finish reading the book and took notes for every single chapter. When I finished, I still felt excited, but also a little apprehensive. Looking at everything at once was daunting and I thought that I wouldn't be capable of implementing the practices in my own classroom. Attending the workshop helped soothe the insecurities I was feeling.

Peter treated the workshop like it was a classroom from the start of the conference. He used the practices from his book so we could see how a lesson might look from a student's perspective. I really liked having that perspective on BTC. We were put in random groups six times and given tasks to work on throughout the event. While working on one of the tasks, Peter brought another group over to ours and told us that we had different answers. Instead of telling us who was wrong, he said, "At least one of these [answers] is wrong, but there is likely a lot of overlap. What do you agree on?" Before we started discussing the methods we took, he had left our groups and went to interact with others. He was able to observe when students were making mistakes, but instead of interjecting with a teacher's explanation, he had the students discuss and try to find errors. By doing this, it shows that getting the right answer is not the most important thing; trying to understand what processes to go through is more important. I also observed that when I did not like collaborating with a certain group, I still kept trying. This was because I knew I would get to work with a new group later, and that kept me engaged and excited in the process.

I am implementing eight of the fourteen practices outlined in the book. These include the first toolkit, consolidating at the end of the lesson, and helping students write meaningful notes. I was able to purchase showerboard at Home Depot to create extra VNP's and mounted them on my walls with command strips. My administration was incredibly helpful in obtaining new tables and chairs to de-front the classroom, and I have used the resources in the BTC Facebook group to help develop lesson plans. So far, I have really enjoyed seeing how engaged the students are during lessons. They are having deep mathematical conversations and I encourage them to use each others' ideas when they get stuck. Seeing the practices in motion helped answer some of the questions I still had about implementing BTC on my own. It has been one of the most valuable experiences I have had in my career and I am so glad to be using it in my classroom!



Ex 1

$$\frac{1+2i}{3i} \cdot \frac{1+2i}{3i} = \frac{(1+2i)^2}{9i^2}$$
$$= \frac{1-2+4i}{-9} = \frac{-1+4i}{-9} = \frac{1-4i}{9}$$

Ex 2

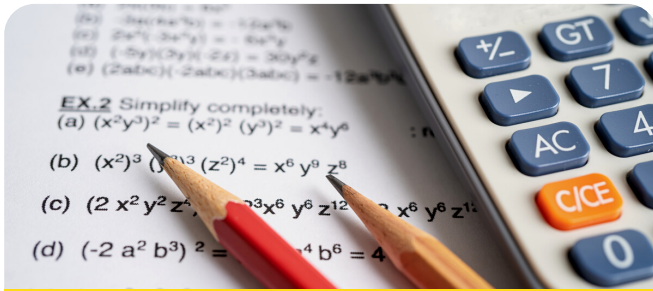
$$\frac{12+3i}{1+2i} \cdot \frac{1-2i}{1-2i} = \frac{12-24i+3i-6i^2}{1-4i^2}$$
$$= \frac{12-21i+6}{1+4} = \frac{18-21i}{5}$$

Things to Remember:

- Multiply the denom by the conjugate to remove complex numbers
- Multiply by i to remove the i from the denom

Ex 2

$$\frac{6-4i}{3-5i} \cdot \frac{3+5i}{3+5i} = \frac{18+30i-12i-20i^2}{9-25i^2}$$
$$= \frac{18+18i+20}{9+25} = \frac{38+18i}{34}$$

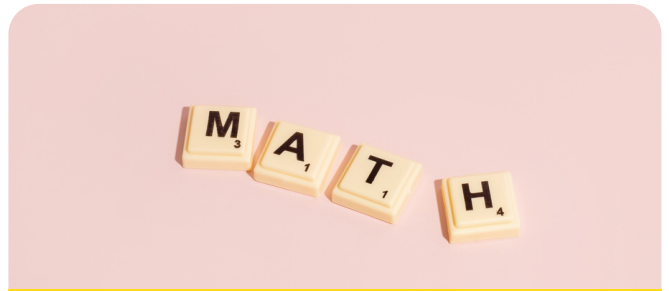


October MTLT Journal Club

Please join the MTLT Journal Club on October 3 to discuss the article “Supporting Mathematics Instruction Through Community” by Joel Amidon and Morgan Trevathan, from the legacy journal Mathematics Teaching in the Middle School.

Description: An early career mathematics teacher works with the support of a teacher educator toward removing herself as a barrier between mathematics and the collaborative work of her students.

[Click Here to Register](#)

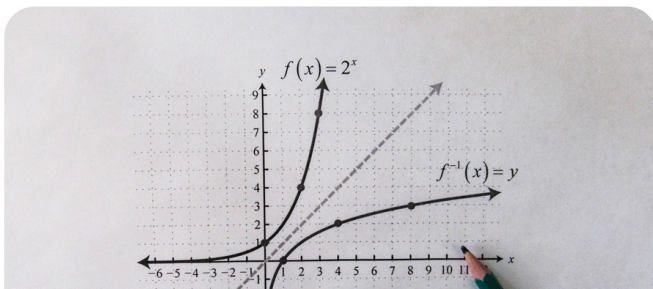


November MTLT Journal Club

Please join the MTLT Journal Club on November 7 to discuss the article “Kenta, Kilts, and Kimonos” by Dorothy White. This article was first published in 2001 in the legacy journal Teaching Children Mathematics.

Description: Fabrics have always been a means of expressing cultural heritage. We can often identify different cultures and countries by the fabrics used in garments worn by their people. These fabrics are beautiful in and of themselves, but they also give us an opportunity to examine various cultures and mathematical concepts, including patterns, geometric shapes, and spatial reasoning.

[Click Here to Register](#)



December MTLT Journal Club

On December 5, the MTLT Journal Club will host a discussion of Rob Wieman’s article “Data Do Not Drive Themselves,” from the legacy journal The Mathematics Teacher.

Description: Several years ago, I was working with a group of high school math teachers about their practice of sharing data from common assessments. People may interpret “data-driven instruction” differently. What data can you collect, and how can you use those data to improve instruction?

[Click here to register](#)



Want to be involved in KATM?

We are in need of a Vice President High School. If you would be interested in serving in this capacity, please fill out this form and someone from KATM will be in touch.

<https://www.katm.org/nominations>

Other positions will become available later in the year. Consider serving on the KATM board!



Exciting KATM news!

KATM is excited to announce our first journal will be available sometime this year. This will be a tremendous benefit for our membership. We are excited to share articles, book reviews and other information with our members.

If you are interested in submitting an article for publication, read on for information about article types and the submission process.

[Click here to submit something to our Journal](#)

Journal Article Types

Theory to Practice

Want to talk about a strategy or theory that you recently put into practice in your classroom? This is the category for you!

These are articles where KATM members can share how they've implemented instructional strategies or theories in their classroom, and report on the successes and challenges associated with these implementations. Submissions should include a summary of the research, book, or theory, as well as details on how it was implemented in the classroom.

Length: 2000 - 3500 words



Journal Article types

Take and Use

Have an activity you'd like to share with fellow KATM members? This is the category for you!

These are articles where KATM members can share their tried and true lesson plans or activities with others! To submit a "take and use" article, please write a summary of the lesson or activity, outlining what you love about it, its goals, the course(s) or grade(s) you use it in, the KSDE mathematics standard(s) it addresses, and how it reflects best practices in teaching mathematics.

Pair this summary with a lesson plan and any handouts required for teaching when you submit.

Summary length: 250 - 500 words

Reflections

Have something you've been pondering and what to share? This is the category for you!

These are articles where KATM members can share retrospectives about their teaching practice. This might be something you've recently learned, or teaching strategies you've shifted. It could be an idea that you've recently been questioning and revisiting in your mind. This is a space in the "Bulletin" where you can share your ponderings with other mathematics teachers.

Length: 500 - 1500 words

Book Review

Want to talk about a book you recently read about teaching and/or math? This is the category for you!

These are articles where KATM members can write a review of a book related to math and/or mathematics teaching. Often, the books reviewed have recently been published (for example, in the past 5 years), but we are open to reviews of classic works as well.

Length: 1000 - 1500 words