

Welcome to MCTM's e-Newsletter!

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## MI Math Community December 2020

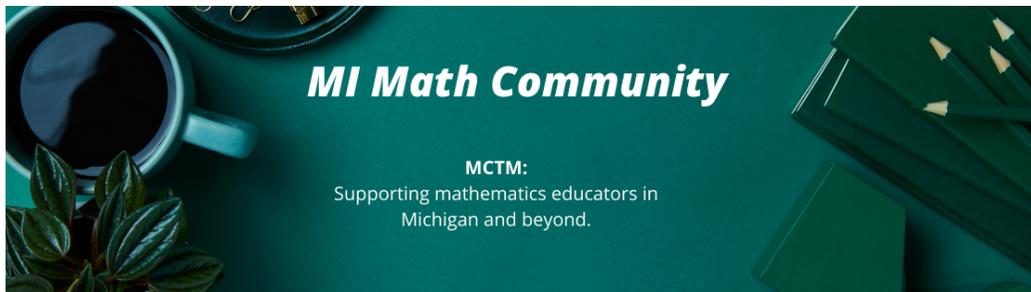


Michigan  
Council of  
Teachers of  
Mathematics

Best viewed on a desktop or go [HERE](#) to see as webpage.

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**Teaser:** Check out the bottom of this email for some downloadable Holiday Fun Facts from the U.S. Census Bureau, another great #MathWalk image, and a holiday greeting!



## **We Want YOU! Join Our Executive Board!**

There are seven (8) positions on the MCTM Executive Board with terms of January 1, 2021 through December 31, 2023 and one (1) position with a term of January 1, 2021 through December 31, 2022. The MCTM Nomination committee is accepting nominations for all listed positions through December 15, 2020.

The MCTM Executive Board holds meetings up to six times a year including face to face meetings and meetings via teleconference. The qualifications for members of the Executive Board include the following:

- Candidates must be members of the Michigan Council of Teachers of Mathematics and maintain their membership throughout their term.
- Candidates for an office of Vice President shall be involved in classroom instruction at that level at least half time.
- Candidates for an office of Regional Director shall live or work within the region to be represented. Region details may be found on the MCTM website under the Membership tab.

Open positions for the Executive Board include:

- President Elect (1Year), President (2Years), Past President (1Year) (term 2021-2024)
- Vice President – High School (term 2021-2023)
- Vice President – 2 Year College (term 2021-2023)
- Regional Director – Region 1 (term 2021-2023)
- Regional Director – Region 3 (term 2021-2023)
- Regional Director – Region 5 (term 2021-2023)
- Regional Director – Region 7 (term 2021-2023)
- Regional Director – Region 9 (term 2021-2023)
- Regional Director – Region 10 (term 2021-2022)

For more information, please contact the MCTM Office at 734-477-0421



MCTM's 2020 Mini-Grant recipients have been chosen! Open to members, these mini-grants (up to \$500) are now offered yearly. This is the second year that MCTM has awarded these grants. Thank you to **Meegan Coonan**, our new **Scholarship Chair** for coordinating and to our review committee for helping to select the awardees. It was a difficult choice to make! Consider applying when the next cycle opens in the fall.



## Kaleigh VanderKamp

Marshall Elementary, Byron Center Public Schools

"This grant will be used to fund a class set of manipulatives for my second grade classroom. Manipulatives play such a key role in helping students move from concrete to abstract mathematical understanding. We are excited to be able to work with tools that will help ALL of the learners in my classroom be successful!"

### Reminder: Presidential Awards for Excellence in Mathematics & Science Teaching (PAEMST)

The 2020–2021 nomination and application cycle for 7–12<sup>th</sup> grade STEM teachers has officially opened. The [Presidential Awards for Excellence in Mathematics and Science Teaching \(PAEMST\)](#) program recognizes the importance of honoring excellent teaching and promoting STEM education. Nominate exemplary 7–12<sup>th</sup> grade science, technology, engineering, mathematics, and/or computer science teachers within your district at [www.paemst.org](http://www.paemst.org) today. **Nominations close on March 1, 2021.**

**Next Session: January 18, 2021 7:00 p.m.**

Register NOW!

**MiSTEM Network**

**MCTM** Michigan Council of Teachers of Mathematics

**MICHIGAN** Department of Education

# Empowering Mathematics Educators

*Learn. Network. Lead.*

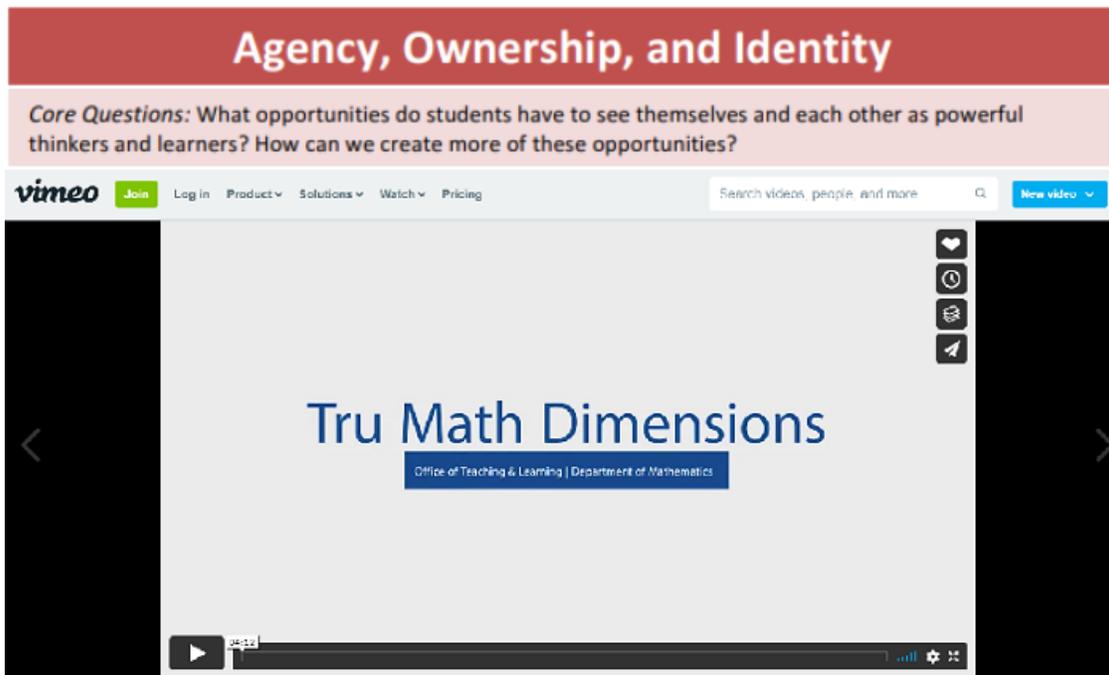
#EmpowerMathEd

## #EmpoweringMathEd Series

November's Empowering Mathematics Educators series was well attended and great discussions were had in breakout rooms and as a whole group.

After exploring what **Agency, Identity, and Authority/Ownership** looks like in a mathematics classroom, participants were able to choose a breakout group to take a deeper dive into topics discussed in previous sessions of this series. These groups were Anti Racist Math Education, Asset-Based Approach to Teaching Mathematics, and Preserving Equity in a Digital Classroom. Watch the video linked below for Agency, Identity and Authority.

Register for January's Session Here!



Tru Math Dimensions: Agency, Authority, & Identity

More from ZIA Learning  
 Autoplay next video

**Rethinking Formative Assessment**

**It is ... Continuous and Ongoing**

**It is ... Through observation and discussion**

**I will ... Follow a learner and listen**

**I will ... Plan a subtle shift to support their growth**

**Resources**

- Strengths-Based Instruction in Mathematics
- FORMATIVE 5
- Essential Instructional Practices for Early Mathematics

**The teacher is facilitating productive discussion and listening in on student thinking.**

**The students are reasoning whole group, small group, and individually.**

**It is NOT ... An assignment for a grade**

**It is NOT ... An exit ticket**

**Nope**

An image of a toll booth with "CASH" signs and a car driving through it. The word "Nope" is overlaid in large red letters.

## Ordering Numbers Task for Google Slides

#EmpoweredMathEd sessions always start with a mathematical task. October's task was about ordering numbers that could be adapted for many different grade levels. [HERE](#) is the link to the Google Slides activity.

### ORDERING NUMBERS TASK:

#### Directions:

1. Assign all of the cards to a group member. Each person must have at least one.
2. Type your name on of your card(s). You may ONLY touch or move your card(s). No one else may touch or move your cards.
3. Working together arrange the cards from least to greatest. Make sure to say out loud what strategy you are using to place the cards. Find as many unique strategies as you can.

#### Individual Final Product:

On a sticky note, each person should describe *in writing* a strategy for comparing the quantities on the number cards. Each person in your group should record a strategy that is different from the ones described by your other group members.

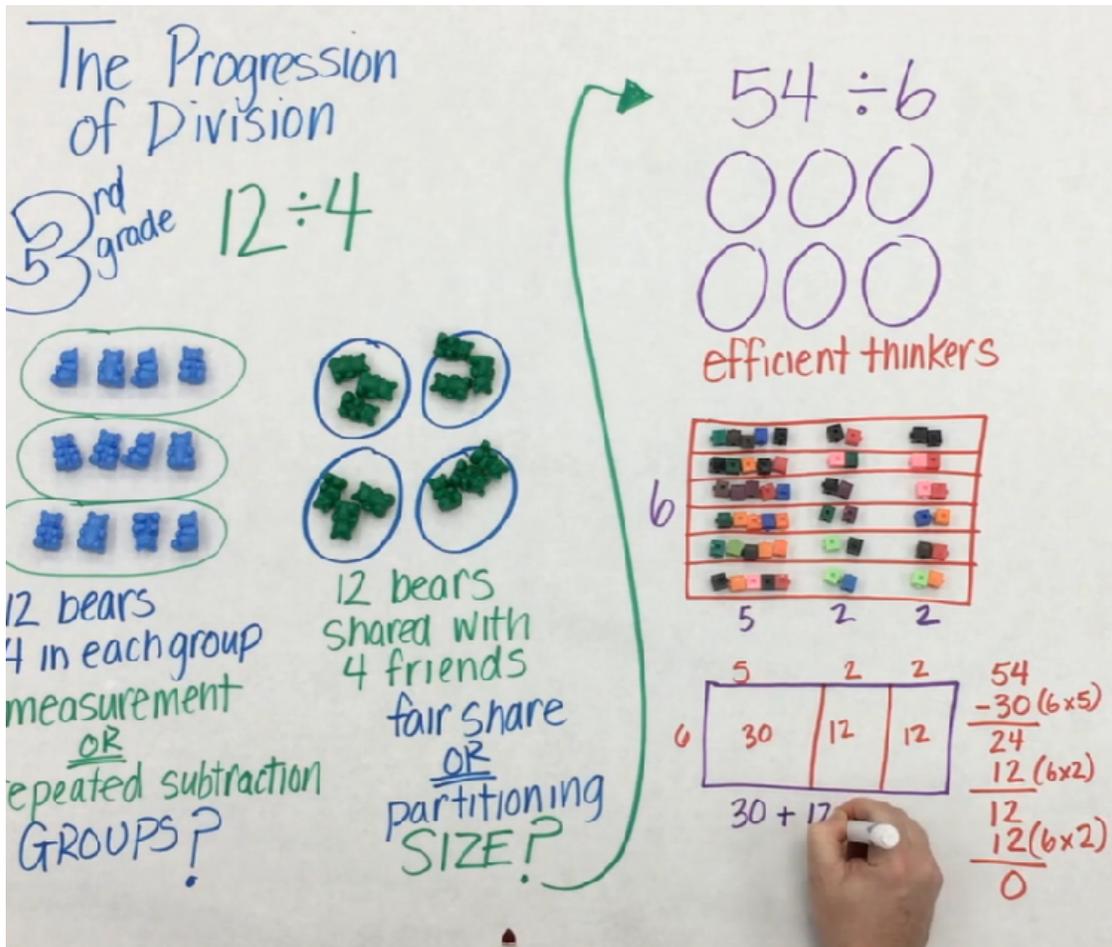
The image shows six sticky notes arranged in two rows of three. Each sticky note has a 'NAME' label at the top. The top row contains a yellow note with '3 x 15', a teal note with a 10x10 grid, and a green note with 'Eight groups of six'. The bottom row contains a purple note with '7 x 8', an orange note with '2 x 3 x 6', and a pink note with a 10x10 grid.

### Progression of Division

*"All of us are smarter than one of us."* – Graham Fletcher

As a follow-up to last issue's progression of multiplication video, we are sharing Graham Fletcher's division video which follows the concept from 3rd thru 6th grade. He is a math specialist who encourages best practices in elementary mathematics. His progression videos connect concepts throughout grade levels. Click on the image below to see his Progression of Multiplication video. Follow Graham on Twitter @gfletcher or connect with his Facebook page.

The screenshot of the video below can be found at the link below.



## Opportunities from NCTM, NCSM, and CMP:

### NCTM 100 Days of Professional Learning Access to Recordings

The 100 Day of Professional Learning has ended, but members still have access to the recordings from our dynamic and exciting sessions from the past 100 days. To access these recordings, visit [www.nctm.org/online-learning/Webinars/list](http://www.nctm.org/online-learning/Webinars/list).

### NCTM Free Trial Memberships

Now more than ever, teachers need support and quality resources they can trust. NCTM is offering [free trial memberships](#) so that teachers can have access to the full breadth of support and benefits NCTM offers.

Registration Open for the Second Virtual NCSM Winter Leadership Seminars

[Virtual Seminar 2](#)

**FEBRUARY 8, 2021**

*Bold Mathematics Leaders: Coaching as a Vehicle to Influence Change*

NCSM is offering a second virtual seminar to expand your professional learning network while working side-by-side using the wealth of materials provided to enhance your leadership. If you are a teacher leader, coach, administrator, or supervisor you won't want to miss out on the second professional learning seminar!

#### Registration Deadline

Please register by **February 3, 2021** for the second winter seminar, *Bold Mathematics Leaders: Coaching as a Vehicle to Influence Change* on February 8, 2021. NCSM is offering a second virtual seminar to expand your professional learning network while working side-by-side using the wealth of materials provided to enhance your leadership. If you are a teacher leader, coach, administrator, or supervisor you won't want to miss out on the second professional learning seminar!

In **Seminar 2 (February 8, 2021)**, you will develop a deeper understanding of coaching structures, providing feedback, strategies for addressing

## **Connected Mathematics Project (MSU) A VIRTUAL CMP PROFESSIONAL DEVELOPMENT EVENT FOR 2021**

In lieu of the 2021 CMP Users' Conference, CMP will be hosting a series of virtual webinars. Visit the website [HERE](#). The first webinar is:

### **USING BIG IDEAS TO GUIDE PACING DURING COVID-19: A FOCUS ON ALGEBRA IN GRADES 6-8**

Wednesday, January 13, 2021 / 7 p.m. EST (4 p.m. PST) / Cost: \$20

**Ann-Marie Nichol Turner**, Ann Arbor Public Schools, MCTM VP 6-8



The **Michigan Mathematics and Science Leadership Network** ([MMSLN](#)) strives to achieve equitable access to research and standards-based mathematics and science learning experiences for all Michigan students. We advocate for professional learning and collaborate statewide and nationally with mathematics and science educators to create, implement, and evaluate leadership and professional learning opportunities for and with Michigan mathematics and science educators.

We're proud to support two key Open Educational Resource (OER) curricula within the state, Illustrative Mathematics and OpenSciEd. Both play a vital role in successfully inviting more students into problem- and phenomena-based learning where they grow and enhance robust math and science identities.

**For those who are already teaching and learning with Illustrative Mathematics**, join our monthly virtual [Unit Overviews](#) to dive into the upcoming unit to uncover the progression of mathematical understanding that unfolds within the Story of the Unit.

**For those who are curious about happenings in [high school teacher prep standards](#), supporting distance learning, and more**, join our [bi-weekly \[science\] chats](#).

**For those who are interested in learning more about OpenSciEd**, join us in December, January, or February to explore and answer, [What is OpenSciEd?](#)

**For those who are thinking about teaching and learning with Illustrative Mathematics**, be on the lookout in early-January as we schedule virtual Curriculum Overview sessions where you'll get a chance to survey the *IM Math* curriculum. We'll focus on problem-based teaching and learning and the corresponding instructional shifts. We'll explore the resources available in the curriculum specifically around student understanding and discourse, planning, assessment, and instructional routines. In early spring, we'll release the schedule for our summer-time *IM Math* Academies, IM certified professional learning for teachers to get ready to teach with IM Math in the

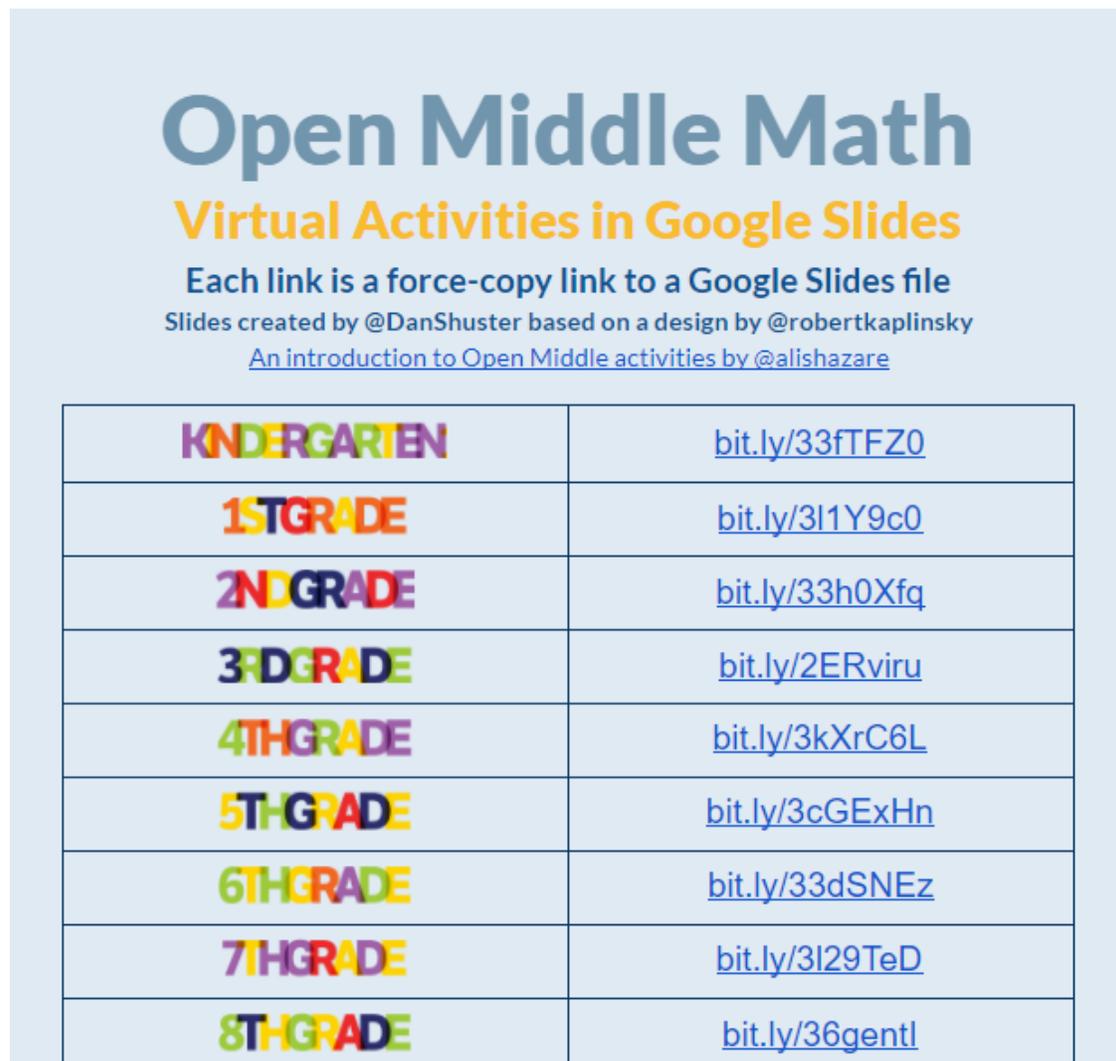
Professional Learning for teachers to get ready to teach math in the fall.

Questions about any of our offerings can be directed to Danielle Seibold, [seiboldd@mimathandscience.org](mailto:seiboldd@mimathandscience.org).

### **MI Math Community: Sharing Resources**

This is a great find shared with us from a MI Math Community reader! The image below is linked to a document that can also be found [HERE](#). Although at the current time it only goes through 8th grade, many of the 8th grade topics could be used for Algebra I and HS Geometry as warm up problems.

Have a resource, website, blog, or activity YOU want to share with *MI Math Community* readers? Email [Publications@mictm.org](mailto:Publications@mictm.org)!



**Open Middle Math**  
**Virtual Activities in Google Slides**

Each link is a force-copy link to a Google Slides file  
Slides created by @DanShuster based on a design by @robertkaplinsky  
[An introduction to Open Middle activities by @alishazare](#)

<b>KINDERGARTEN</b>	<a href="https://bit.ly/33fTFZ0">bit.ly/33fTFZ0</a>
<b>1STGRADE</b>	<a href="https://bit.ly/311Y9c0">bit.ly/311Y9c0</a>
<b>2NDGRADE</b>	<a href="https://bit.ly/33h0Xfq">bit.ly/33h0Xfq</a>
<b>3RDGRADE</b>	<a href="https://bit.ly/2ERviru">bit.ly/2ERviru</a>
<b>4THGRADE</b>	<a href="https://bit.ly/3kXrC6L">bit.ly/3kXrC6L</a>
<b>5THGRADE</b>	<a href="https://bit.ly/3cGExHn">bit.ly/3cGExHn</a>
<b>6THGRADE</b>	<a href="https://bit.ly/33dSNEz">bit.ly/33dSNEz</a>
<b>7THGRADE</b>	<a href="https://bit.ly/3l29TeD">bit.ly/3l29TeD</a>
<b>8THGRADE</b>	<a href="https://bit.ly/36gentl">bit.ly/36gentl</a>

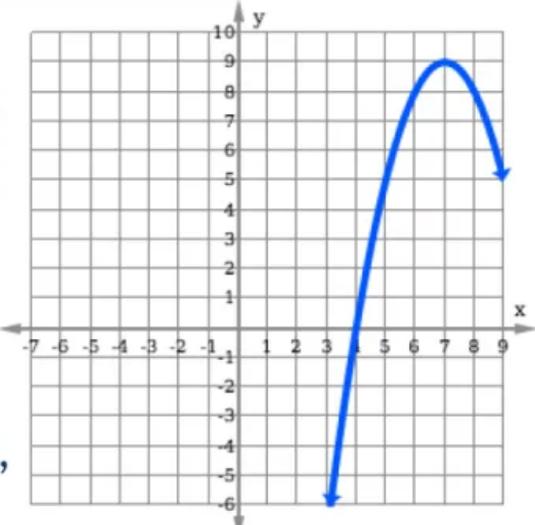
## More on Math Talks in Secondary Mathematics Classrooms?

Michelle Rinehart (@HowWeTeach) has a plethora of resources for secondary teachers on her website. The example below is a conversation starter algebra teachers can use with students studying quadratic functions. Math talks help students develop mathematical reasoning skills, build math discussion skills, value a variety of thinking strategies, and create classroom community. Want more? go to her website for math talk ideas ranging from ratios and fraction reasoning to geometry and graphs of functions. (Click on image to be taken to website.)

<https://howweteach.com/mathtalks/>

What do you know about this graph?

Explain your thinking using words, pictures, tables, numbers, symbols, equations, etc...



**HOW WE**  
*teach*

MathTalks Website



## MCTM Blog: A Year in Review

with the launch of MCTM's new website early in 2020 came the launch of the new MCTM Blog. We are thankful to all those who have contributed to this new endeavor. We've had a wide range of contributors -- from kindergarten teachers to college professors -- and a wide range of topics. Guest bloggers have discussed their personal journeys in teaching mathematics, issues of equity, helping students foster a positive math identity, and overcoming professional isolation. Haven't had a chance to read them all? Head on over to our blog page from the link below to hear from fellow Michigan educators.

As you are reading, perhaps you will feel the nudge to share your own experiences with your peers. As Chelsea Ridge, GVSU, quoted in November "Everyone thinks they can't before they can" ([Teaching Through a Pandemic: A Mindset for This Moment](#)). **We appreciate our teacher authors sharing their voice and would LOVE to hear from you!** Reach out to be featured on the MCTM blog by contacting [membership@mictm.org](mailto:membership@mictm.org) !

**Kelli Vansettters**, MCTM Membership Chair

[Visit Our Blog Page](#)

### MCTM's Miriam Schaefer Scholarship Winners 2020

Over the next three months, we will feature this year's recipients of the Miriam Schaefer Scholarship. These awardees are undergraduate students at Michigan colleges and universities studying to join us as K-12 educators!



## Brea Goodwin, Grand Valley State University

Megan is a elementary education major that will encourage students to collaborate and problem solve, encouraging them to creatively tackle tasks.

“During 7th grade pre-algebra, my teacher posed questions to why such algorithms worked and why we followed certain steps. These questions led me to observing patterns and connections. My teacher celebrated observations and discovering different strategies and connections that helped us not just solve but understand the math problem. It was then that I found my love for math as it challenged my thinking as I explored strategies, connections and solutions.

I desire to teach elementary students to inspire and encourage them to love mathematics. My goal is to help student not just get the “right” answer but foster creative and original approaches to help develop conceptual understanding.”

### From Our Readers: Teaching Remotely? You Might Want to Read These!

Newsletter readers have suggested the following articles for Michigan teachers who are teaching virtually. It is an extremely challenging time for teachers everywhere. How can we maximize our time and efforts? Click on the images to be sent to the articles. To share your thoughts with MI teachers on Twitter, use @michiganmath

#### TEACHER DEVELOPMENT

### Strategies for Working Efficiently When Teaching Online

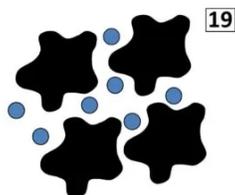
Teaching in distance and hybrid models is time-consuming, so teachers need to make sure they use their time well.



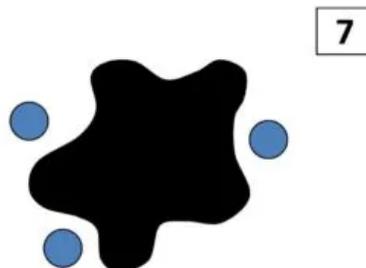
Note: Splats that are the same color must cover the same number.

## Splat!

Steve Wyborney has created FREE resources for teachers to help students develop a variety of concepts using mathematical reasoning. He has Google Slide/PowerPoint versions available [HERE](#) for download and an article that discusses their use in the classroom [HERE](#). Some Splats! use counting numbers and others use fractions. These are developed for elementary students are a variety of grade levels. Next month we'll feature his Esti-Mysteries.



How many dots are under the Splat?



## Teachers Helping Teachers: High School Geometry Standards

One of our readers stumbled upon Mike Patterson's [YouTube Channel](#) while preparing lessons for class and was impressed by the quality and connection to Common Core State Standards. Mike is a past Presidential Award of Excellence in Math and Science Teaching recipient as well as a Milliken Educator of the Year. Whether you are new to teaching geometry or seeking high quality videos to assist students, this is a good channel to check out! His website [Geometry Common Core](#) has a variety of resources organized by units. ALERT: There ARE materials for purchase, but there are plenty of free resources organized by unit.





## *Press Release*

Contact: Martin Ackley, Director of Public and Governmental Affairs, 517-241-4395  
Bill Disessa, Spokesperson, 517-335-6649

### **MDE Establishes Network to Address Children's Social and Emotional Learning and Mental Health Needs**

PDF of full Press Release

### **Holiday Season Fun Facts! U.S. Census Bureau**

Statistics in Schools, part of the U.S. Census Bureau, has free materials for educators that are written by and for classroom teachers. This month they have some great holiday season fun facts available for download. Enjoy!

Want to get email updates from them directly? Sign up [HERE](#).

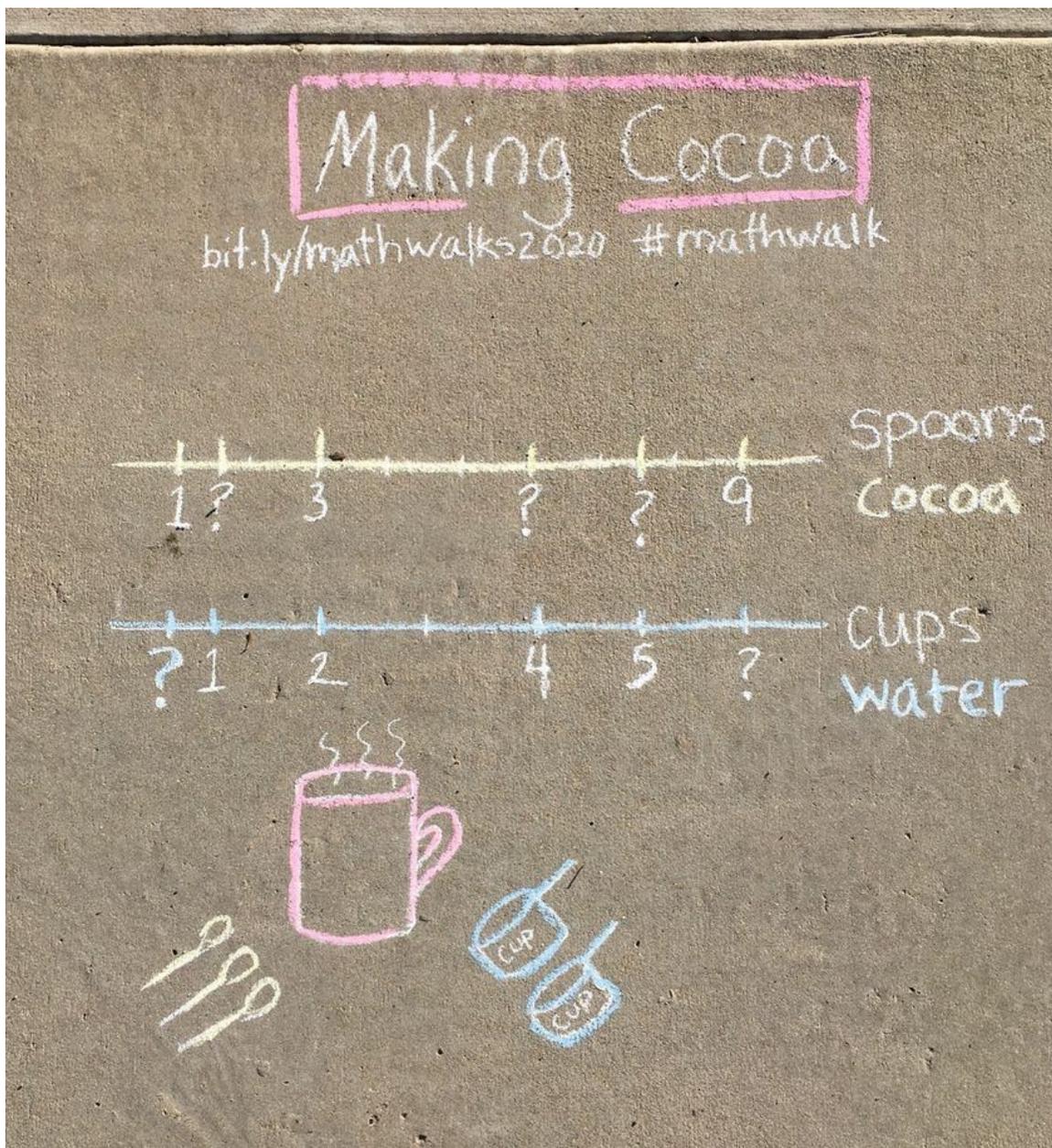
Fun Facts Downloads

## #MathWalks

Traci Fikstad Jackson created Math Walks on Facebook at the beginning of April this year. She shares this math images in a variety of teacher groups on FB including Build Math Minds. Her latest image is Making Cocoa inspired by Math Moment Maker's K-12 (a Facebook Group) Kyle Pearce's 3 Act Task.

All of her images are available for free on her website:

<https://sites.google.com/powayusd.com/math-walks/home>





According to Fred Goldenberg of the Traverse City [Record Eagle](#), there are approximately 30 secular and religious holidays celebrated between November 1st and December 31st. Whichever holidays you, your family, or your students celebrate, we wish you all the best. It's been a difficult year to be an educator, and we want to reiterate our appreciation for all of your efforts on behalf of your students. We are stronger together! **May you enjoy your Winter Break and get a chance to rest, recharge, unplug, and enjoy loved ones!**

Volume 1, Issue 1 of *MI Math Community* made its way to your inbox in March of this year. We hope we have provided you with a connection to other math educators, an interesting read, a new idea, and/or valuable information. We are always looking for readers to suggest and/or write content. Contact [Publications@mictm.org](mailto:Publications@mictm.org). We've got plans to further develop our offerings to you in the next year!

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Welcome to **MI Math Community**! One of MCTM's renewed initiatives is a monthly e-newsletter to share information about mathematics, mathematics education, and the happenings of MCTM.

Have an idea or topic you'd like to see included? Have a short article to submit for publication consideration? Want to give feedback? Please email MCTM Publications Director and MI Math Community Editor **Christine Kincaid Dewey** at [Publication@mictm.org](mailto:Publication@mictm.org). Look for the e-newsletter to develop and grow over time based on member input.

**Please share this newsletter with ALL of your educator colleagues! We want to spread the good news!**

*This message has been sent to you {Organization Name}*  
*If you no longer want to receive these letters, you can unsubscribe at any time*

*Contact the e-Newsletter editor at [Publications@mictm.org](mailto:Publications@mictm.org)*