



A message from the Executive Director, Tom Young

Hello all! Four regular season meets down, one to go!

Here's Newsletter #4 for the 2023 – 2024 season. In it, notice these items:

1. A message from Colin Gardner Springer
2. Meet Dates for 2023 – 2024
3. Meet Dates for 2024 – 2025 Results of the survey!!!!
4. Wayne Roberts' new book
5. *Plan for next year for Math League 2.0*
6. *Guess the Interval Game explained*
7. *Video Contest*
8. *State Tournament T-Shirt Design Contest*
9. *Problem Corner*

Meet one of our honorary judges

Belinda Jensen

- Meteorologist at KARE11
- Bachelor of Science degree in Meteorology from University of Wisconsin at Madison
- Author of *Bel the Weather Girl* book series

A party for Clouds

Raindrops on a rollercoaster

The sky stirs up trouble

A snowstorm shows off



1. A message from the HPWT (Head of the Problem Writing Team) Colin Gardner-Springer

As mentioned in the previous newsletter, our competition format will be changing next season. Most notably, the number of individual events is shrinking from four to three, and all students will participate in all three events.

This obviously requires a significant reorganization of the topics list, which is underway, and has been based heavily on input received during the topics list work session at last summer's coaches conference. Coaches will get another chance to weigh in with feedback and suggestions on this proposal, so stay tuned and watch for emails from the League! The 2024-25 topics list will then be finalized at a spring meeting of the full board.

The Minnesota State High School Mathematics League has a long and proud tradition, and it's important to note that all of us involved in implementing this change are determined to preserve this. While the meet structure is changing and topics will be reorganized, from a student's perspective this should still "feel like" Math League.

We're also committed to ensuring that there are accessible problems and topics on all three events across all five meets. That said, younger and less experienced students will initially find many unfamiliar topics - that's OK! Focus on helping them learn one or two topics per event each year, and their skills (and scores) will naturally increase over time. Success comes in many forms, and getting even a single problem correct is something to celebrate and build on.

None of this would be possible without you, the coaches. Once the topics list is finalized, we'll be sending practice materials and resources to help you prepare your students for these changes. Thank you for your dedication to the Math League!

To wrap up, here are some (mostly vague) notes regarding Meet 5:

- Students will need to use their thinking caps for Event A - the 20 minute time limit (for event 5A only) may be helpful!
- There shouldn't be any surprises in Event B, which generally consists of various types of ratio problems.
- Event C problems should be understandable whether or not students have studied the topics, but will certainly be easier to solve for those who have!
- Three of four Event D problems are based on the 2023 AMC 12A. Three or four Event D problems are based on the first 10 problems (of either the 12A or 12B competition).
- A couple of Team round problems are also based on those from the most recent AMC 12A or 12B competitions.

Best of luck on Meet 5!

Colin Gardner-Springer (colin@gardner-springer.com)

Head of the problem writing team

2. Meet Dates for 2023 - 2024

Meet 5	February 12, 2024	Required to meet as a Division in person
Tournament	March 11, 2024	NOTE: Change in site – tournament will be held at Spring Lake Park HS

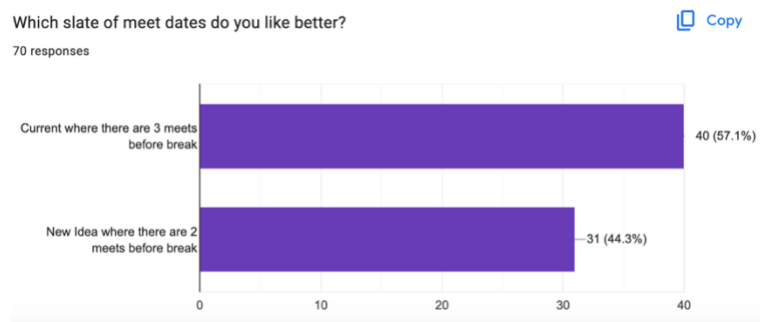
3. Meet Dates for 2024 – 2025

In the second newsletter we asked for your opinion as to which of the following two schedules you would prefer

2024 - 2025
November 4, 2024
November 25, 2024
December 16, 2024
January 27, 2025
February 10, 2025
March 10, 2025

2024 - 2025
November 18, 2024
December 9, 2024
January 13, 2025
February 3, 2025
February 24, 2025
March 24, 2025 (possibly March 17 depending on school availability)

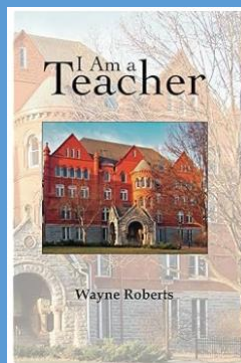
Seventy-one of the coaches weighed in with the following results:



At this time, no changes are anticipated, but stay tuned!

4.

Wayne Robert's
New Book



Amazon at
[Wayne's Book](#)

5. New Competition Structure for 2024 – 2025 and beyond

Overview: Due to the pandemic and the shifting nature of the League Operations the League Office thought it was necessary to evaluate our current operations to see if they fit the reality of today. In order to get the best data, the League Office distributed a survey that went out to all coaches, hosted an in-person retreat with 15+ coaches and the Executive Committee, and dedicated the majority of the Coaches Conference to this topic. Based on the robust discussions over the last few months, the Executive Committee drafted this proposal which the Board approved October 1st. These changes will go into effect in the 2024 – 2025 season

Timeline: These changes, adopted by the Board, will be implemented for the 2024-2025 school year.

Part 1: The structure of meets will be changed from 4 individual events to 3 individual events, ***with all students participating in all individual events.***

Rationale:

- Allows 9th and 10th grade students more access for advanced questions.
- Keeps the time frame for In-Person Meets the same
- Eliminates the disparity of choosing different events for different students.
- Retains the process of selecting the scoring team ahead of time.
- Allows for easier substitutions when students are absent.

Specific Details:

- The 3 individual events will each have 5 questions.
 - Each question will be worth 1 point.
 - There will be two “quickie questions” per event.
 - Power scoring will still be in place.
- Coaches will still need to set their scoring team prior to the Meet start.
 - No more than 6 of the 8 scoring team members shall be beyond the 10th grade (as is currently the case).
- Team Event Scoring
 - There will be 6 questions on the team event.
 - Each question will be worth 5 points.
 - A perfect team score at one meet will be 150 points.
- The topic list will be revised and submitted to the board for approval at a future meeting.
- Additional practice materials will be created, perhaps including a reorganizing of the problem archive.
- Coaches might be able to select a Junior Varsity team in the scoring system (implementation pending)

Part 2: Implement a “Guess the Interval” for Meet 1 and Meet 5.

Rationale: This event will increase competition fun for all students and the team aspect and bonding amongst students.

Specific Details:

- The League Office will create and provide an overview, scoring instructions, and instructional video on how to implement it.
- This will not be a part of the scoring system.
- This event will be available as an in-person, virtual, and hybrid version for Meet 1.
- This event will take place live at Meet 5.

6. Guess the Interval Game Version BETA

SETUP

You are given 10 items to estimate the interval in which the item resides.

You are given 14 guesses to use to identify the interval

PLAY

During the 20-minute game time, you submit guesses as to the interval an item resides.

You can submit up to five guesses on the same item. This may improve your score.

No internet researching allowed

SCORING

Every team starts with 3200 points. The best score is 0.

If your guess for the interval doesn't include the right answer within that interval, you are assessed 100 penalty points each of these times. Penalty points are added to the total

If your guess for the interval does contain the correct answer, points are subtracted from your score according to the following scale:

Your interval score is **the floor of the quotient of your max divided by your min of the interval**

If your interval score is 1, 300 points are subtracted from your score

If your interval score is 2 through 5, 150 points are subtracted from your score

If your interval score is 6 through 10, 50 points are subtracted from your score

If your interval score is over 10, zero points are subtracted from your score

Your best result per question is what is used for the total

Fifty points are subtracted for each unused guess

A max of 5 guesses per question

The team with fewest points wins

A sample Google Sheets spreadsheet that implements the game
will be sent by Wednesday February 7th

7.

MN State High School Math League Math Team Video Contest

1st place: \$200 to school's math team

2nd place: \$150 to school's math team

3rd place: \$100 to school's math team

Video Guidelines:

Produce a 90 second video explaining why you like to be involved in the Math League. Videos might include: student interviews, teacher endorsements, sample problems, or video of practices/meets.

Video Entry Submission:

Videos are due to the Math League Office
(mathleague@augsborg.edu)
by *March 4st, 2024.*

- Videos contest entries must be sent and approved by the school math team coach.
- Winning schools will be notified by March 7, 2024.
- Winning video will be shown at the State Tournament on March 11, 2024, uploaded to the Math League Facebook page, and may be used for recruitment efforts

8. MN State High School Math League 2024 State Tournament

T-shirt Design Contest

Prize: **\$50 VISA Gift Card and a Free T-shirt**

How to enter:

Submit a one-color design for the t-shirt front.

The design should include the words:

MN State High School Math League State Tournament March 11, 2024

- Email your design by **Feb. 8** to: mathleague@augsborg.edu
- Accepted file format: pdf only
- Include your name, grade and school in the email submission.
- Winner will be notified by Feb. 11th via email.

Email mathleague@augsborg.edu with questions

Problem Corner

an effort to spur conversation

If you'd like to contribute a problem
or send in a solution, email
tomyoungmathman@gmail.com

Student solutions
encouraged!

Newsletter #42 Puzzler:

11+	2÷		20x	6x	
	3-			3÷	
240x		6x			
		6x	7+	30x	
6x					9+
8+			2÷		