Minnesota State High School Mathematics League



Newsletter

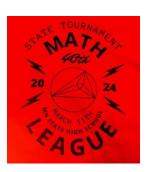
Issue #43, April 1, 2024

A message from the Executive Director, Tom Young

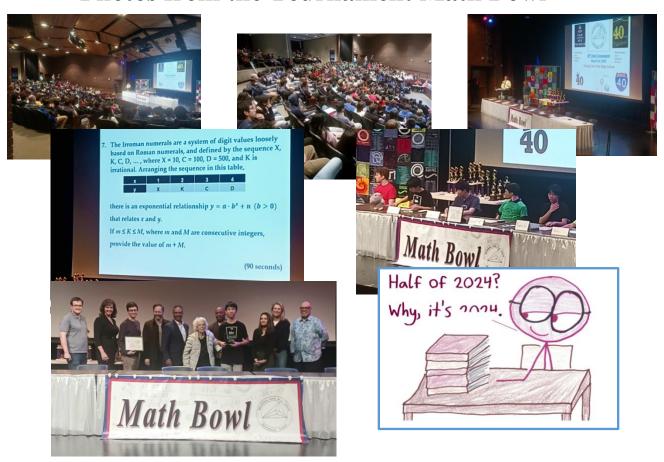
Hello all! Another Math League season complete! Now it's SMI and Summer Coaches Conference planning

Here's Newsletter #5 for the 2023 – 2024 season. In it, notice these items:

- 1. A message from Colin Gardner Springer
- 2. A wrap up of the State Tournament
- 3. SMI and Coaches Conference details
- 4. Meet Dates for 2024 2025
- 5. Plan for next year for Math League 2.0
- 6. Video Contest winners Past and Present
- 7. Scenes from behind the scenes
- 8. Problem Corner
- 9. Standings after Meet 5



Photos from the Tournament Math Bowl



1. A message from Colin Gardner – Springer

As mentioned in previous newsletters, 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!

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

Head of the problem writing team

2. **State Tournament Wrap Up**





Honorary Judges for Math Bowl

















Married Paul Young 1947





Individual Achievement

Top Day of Tournament Performances



Henry Zheng 12 Edina Sam Kretzschmar 10 Spring Lake Park Kevin Qiu 10 Wayzata

Top Performance season plus tournament



Kevin Qiu 10 Wayzata Henry Zheng 12 Edina **Eric Ding 8 Century**

School Achievement

Class A

1	Breck	64
1	Parnassus Preparatory	64
3	Shattuck-St Mary's	54
4	Cotter High School	43
5	Proctor HS	40
6	New London Spicer HS	40
7	Cannon Falls HS	34
8	Luverne Jr Sr HS	30
9	Pelican Rapids HS	30
10	Thief River Falls HS	30



Shattuck St. - Mary's



Parnassus Preparatory



Breck

Class AA

1	Highland Park HS	68
2	St. Croix Lutheran	62
3	Minnehaha	58
4	Mankato West HS	57
5	Tech HS	51
6	St. Agnes School	47
7	Hermantown HS	44
8	Mound Westonka	43
9	St. Anthony Village	42
10	Grand Rapids HS	37



Minnehaha Academy



St Croix Lutheran



Highland

Class AAA

1	Wayzata HS	114
2	Century HS	95
3	Edina HS	94
4	Blake School	88
5	Minnetonka Senior HS	84
6	Spring Lake Park HS	82
7	St. Paul Academy	79
8	Mounds View	76
9	East Ridge HS	74
10	International School MN	74
11	Mayo HS	69
12	Central HS	69
13	Eastview HS	64
14	Eden Prairie HS	62
15	Duluth East HS	62
16	Elk River HS	53
17	Washburn High School	53
18	Rosemount HS	48



Edina

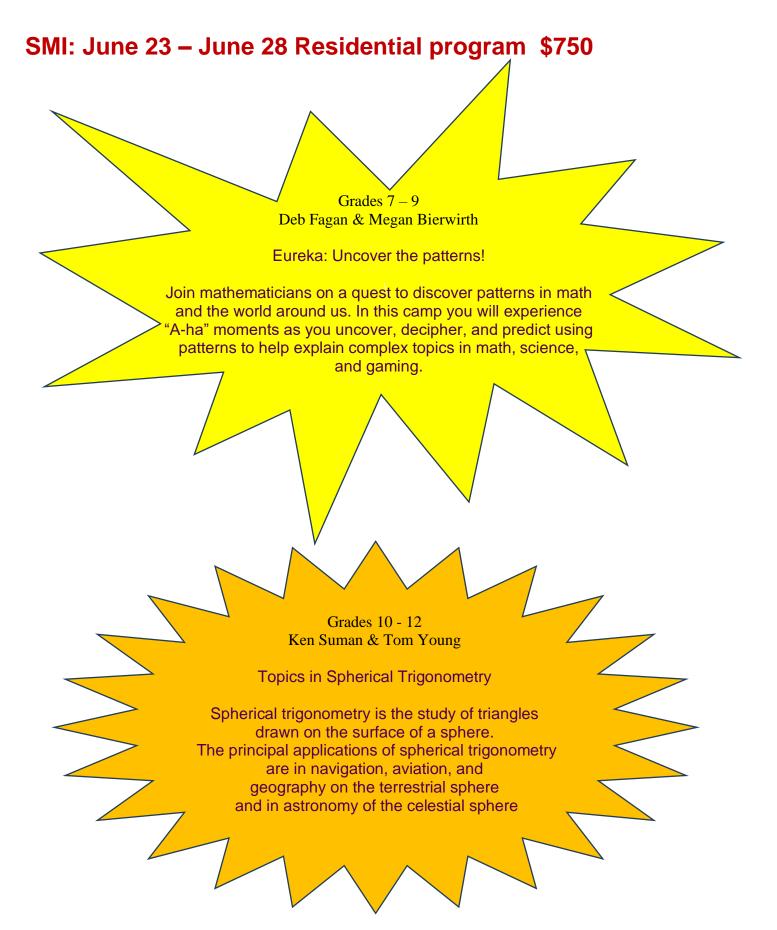


Century



Wayzata

3. Summer Math Institute and Summer Coaches Conference



Summer Coaches Conference July 18 and 19

Topic: navigating the new changes to the League



4. 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

20	24 - 2025
No	vember 18, 2024
De	cember 9, 2024
Jar	uary 13, 2025
Fel	oruary 3, 2025
Fel	oruary 24, 2025
Ma	arch 24, 2025 (possibly March 17 depending on school availability

On April 9th, the Executive Committee is going to weigh in on this subject.

It is the League's Executive and Associate Directors recommendations that we adopt the "Two before winter break" schedule as long as the State Tournament is March 17.

STAY TUNED!

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.
- o 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.

Math Team Video Contest Winners over the Past Few Years

Highly recommend watching them!!

Math League Videos

7. SCENES from Behind the Scenes



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:

5	2÷ 6	3	20× 4	6x 1	2
6	3- 1	4	5	3÷ 2	3
240× 4	5	6× 2	3	6	1
3	4	6× 1	7+	зох 5	6
6× 2	3	6	1	4	9+
8+ 1	2	5	2÷ 6	3	4

Newsletter #43 Puzzler:

https://www.hitbullseye.com/puzzle/hard-math-puzzles.php

There are 3 colored boxes - Yellow, Black and Orange. Each box contains 2 envelopes. Each envelope contains cash - two of them contain Rs. 250000 each, two of them contain Rs. 150000 each and remaining two contain Rs. 100000 each.

There is one statement written on the cover of each box.

- * Yellow Box: Both, a yellow box and a orange box contain Rs. 100000 each.
- * Black Box: Both, a black box and a yellow box contain Rs. 250000 each.
- * Orange Box: Both, a orange box and a black box contain Rs. 150000 each.

Only one of the above 3 statements is true and the corresponding box contains the maximum amount.

Can you tell which box contains the maximum amount and how much?

2024 Final Standings by Class

4. 500 We - 4-110	0.
1 580 Wayzata HS	2AAA Southwest Suburban
2 538 Century HS	1AAA Big 9
3 535 Edina HS	2AAA Southwest Suburban
3 535 Minnetonka Senior HS	2AAA Southwest Suburban
5 485 East Ridge HS	3AAA Suburban East
6 476 St. Paul Academy	4AAA Tri-Metro
7 442 Mounds View HS	7AAA North Suburban
8 440 Blake School	2AAA Tri-Metro
9 438 Eastview HS	3AAA South Suburban
10 423 Mayo HS	1AAA Big 9
11 419 Spring Lake Park HS	7AAA North Suburban
12 404 International School of MN	2AAA Canterbury
13 397 Eden Prairie HS	2AAA South Suburban
14 396 Central HS	4AAA St Paul City
15 387 Rosemount HS	3AAA South Suburban
16 385 Elk River HS	5AAA Mississippi
17 379 Duluth East HS	8AAA St Louis River
17 379 Eagan HS	3AAA South Suburban
19 374 Woodbury HS	3AAA Suburban East
20 370 Lakeville South	1AAA Canterbury
21 349 Washburn High School	6AAA Minneapolis
22 347 White Bear Lake HS	4AAA Suburban East
23 346 Andover HS	5AAA Twin City Sub West
24 342 Apple Valley HS	3AAA South Suburban
24 342 Sartell HS	8AAA Central Gopher
26 340 Irondale HS	7AAA North Suburban
27 330 Blaine HS	7AAA North Suburban
	6AAA Southwest Suburban
28 316 Hopkins HS 29 305 Bemidji HS	
,	8AAA Northern Lights
30 300 Southwest HS	6AAA Minneapolis
31 296 Bloomington Kennedy HS	6AAA South Suburban
32 289 Stillwater Area HS	4AAA Suburban East
33 288 Moorhead HS	8AAA West Central
34 283 Jefferson HS - Bloomington	6AAA South Suburban
35 280 St Louis Park HS	5AAA Southwest Suburban
36 279 Champlin Park	5AAA Twin City Sub West
37 274 Burnsville HS	6AAA South Suburban
38 270 St. Michael-Albertville HS	5AAA Mississippi
39 264 Cambridge-Isanti HS	8AAA Rum River
40 249 Visitation - St Thomas Academy	4AAA Classic Suburban
41 237 John Marshall HS	1AAA Big 9
42 232 Lakeville North	1AAA Canterbury
42 232 Park HS	3AAA Suburban East
44 228 Roseville Area HS	7AAA Suburban East
45 217 Maple Grove Sr HS	5AAA Twin City Sub West
46 213 North St Paul HS	4AAA Classic Suburban
47 203 Farmington HS	1AAA Canterbury

48 190 Coon Rapids HS

49 177 Tartan High School

50 176 Owatonna HS

51 172 Chanhassen/Chaska HS

52 169 Harding HS

53 157 Sauk Rapids-Rice HS

54 70 Osseo HS

7AAA Twin City Sub West

4AAA Classic Suburban

1AAA Big 9

6AAA Canterbury

4AAA St Paul City

8AAA Central Gopher

5AAA Twin City Sub West

380 St. Croix Lutheran HS 4AA Tri-Metro 366 Minnehaha Academy 4AA Tri-Metro 3 360 Hermantown HS 7AA St Louis River 4 357 Highland Park HS 3AA St Paul City 5 338 St. Agnes School 4AA Tri-Metro 6 329 Marshall School 7AA St Louis River 7 319 Cretin-Derham Hall HS 4AA St Paul City 8 318 Academy of Holy Angels 4AA Tri-Metro 9 313 Mound Westonka HS 2AA Metro Alliance 10 307 Mankato West HS 1AA MN Valley 11 305 Schaeffer Academy 1AA Hiawatha 2AA Dynamic South 12 301 Marshall HS 13 293 MN Valley Lutheran HS 1AA MN Valley 14 290 Totino-Grace HS 5AA North Suburban 15 286 St. Anthony Village 5AA Metro Alliance 16 276 Grand Rapids HS 8AA Iron Range 17 274 Mahtomedi HS 3AA Classic Suburban 18 272 Alexandria Area HS 8AA West Central 19 269 Hill Murray HS 3AA Classic Suburban 20 263 Kennedy Secondary-Fergus Falls HS 8AA West Central 21 262 Tech HS 6AA Central Gopher 22 254 Benilde-St Margaret's HS 6AA Metro Alliance 22 254 Holy Family Catholic High School 2AA Canterbury 24 237 Mankato East HS 1AA MN Valley 25 226 Cloquet HS 7AA St Louis River 26 225 Chisago Lakes HS 7AA Rum River 27 224 Hibbing HS 7AA Iron Range 28 221 Osceola HS 7AA Suburban East 29 211 Monticello HS 6AA Mississippi 29 211 Orono HS 2AA Metro Alliance 31 208 Big Lake HS 6AA Mississippi 32 207 DeLaSalle HS 5AA Tri-Metro 33 201 Annandale 2AA Mississippi 34 198 Eagle Ridge Academy **4AA Canterbury** 35 186 Roosevelt HS **5AA Minneapolis** 36 184 Denfeld HS 7AA St Louis River 37 178 Minneapolis South HS 5AA Minneapolis 38 177 Rock Ridge 7AA Iron Range

8AA West Central

39 169 Northern Cass

40 162 Hutchinson HS 2AA Prairie

41 157 Simley HS 3AA Classic Suburban

42 156 St. Peter HS 1AA MN Valley

43 141 South St Paul HS 3AA Classic Suburban

44 139 Faribault HS 1AA Big 9

45 122 Johnson HS 3AA St Paul City 46 111 Washington Tech HS 3AA St Paul City

47 104 Apollo HS

8AA Central Gopher
48 102 Columbia Heights HS

5AA Metro Alliance

49 79Princeton HS6AA Rum River50 74Edison HS5AA Minneapolis51 69Red Wing HS1AA Hiawatha

52 64 Foley HS 6AA Rum River 53 28 Fridley HS 5AA Metro Alliance

54 14 Cooper-Robbinsdale HS 6AA Southwest Suburban

1 331 Shattuck-St Mary's 2A Wasioja

2 330 Breck 4A Southwest Suburban

3 322 Cotter High School 1A Hiawatha

4 311 Parnassus Preparatory School
5 261 Luverne Jr Sr HS
6 253 Hope Academy
7 250 Lourdes HS
8 249 Waseca HS
4A North Suburban
2A Dynamic South
4A Minneapolis
5A Hiawatha
2A MN Valley

9 245 Proctor HS 7A St Louis River 10 235 Cannon Falls HS 5A Wasioja

11 229 New London Spicer HS 3A Prairie

12 228 Pelican Rapids HS 6A West Central

13 227 Atwater-Cosmos-Grove City
14 219 Barnum HS
7A Polar
15 211 Dassel-Cokato HS
3A Prairie

16 209 Plainview-Elgin-Millville HS 1A Three Rivers

17 206 Moose Lake HS7A Polar18 198 Esko HS7A Polar19 195 Mounds Park Academy4A Tri-Metro

20 189 Thief River Falls HS
21 182 Fairmont HS
22 181 St Charles HS
23 174 Hillcrest Lutheran Academy
24 172 Lakeview HS
25 171 Blue Earth Area HS
26 166 Greenbush-Middle River
28 Northern Lights
28 Northern Lights

26 166 Greenbush-Middle River 8A Northern Lights

27 165 Pine Island HS 5A Wasioja

28 164 Montevideo HS

29 157 La Crescent Senior HS

3A Dynamic South
1A Three Rivers
30 154 Breckenridge HS

6A West Central

31	151	East Central Secondary School	7A Polar
32	148	Mora HS	7A Rum River
33	146	Albany High School	6A Central Gopher
33	146	Lewiston Altura HS	1A Three Rivers
35	144	North Woods School	8A Iron Range
36	137	MACCRAY HS	3A Prairie
37	132	Wabasha/Kellogg HS	1A Three Rivers
38	129	Mt. Iron-Buhl	8A Iron Range
39	123	Nevis HS	6A Northern Lights
40	110	Badger HS	8A Northern Lights
41	108	Lake Crystal Wellcome Memorial	2A MN Valley
42	103	Zumbrota-Mazeppa	5A Wasioja
43	102	Dover-Eyota HS	5A Three Rivers
43	102	Minneapolis-North Community HS	4A Minneapolis
45	98	Lincoln HS - Lake City	1A Hiawatha
45	98	Tri-City United	2A Wasioja
47	93	Kenyon-Wanamingo HS	5A Wasioja
48	83	Carlton HS	7A Polar
49	72	Nashwauk-Keewatin HS	8A Iron Range
50	55	Humboldt HS	4A St Paul City
51	34	Chatfield HS	5A Three Rivers

State Individual Standings Meet 1 - Meet 5 (top 50)

Rank	c Last	First	Team	Grade	Gender	Total	Power Pts
1	Luo	Michael	Minnetonka Senior HS	9	-	70	129.1294
1	Qiu	Kevin	Wayzata HS	10	M	70	129.1294
3	Niu	Ryan	Woodbury HS	10	M	68	119.8251
4	Ding	Eric	Century HS	8	M	66	119.3006
5	Zheng	Henry	Edina HS	12	M	68	116.6995
6	Garimella	Aarya	Edina HS	11	M	68	112.8771
7	Wang	Austin	Mounds View HS	9	M	66	111.2725
8	Zhang	Kaining	Blake School	10	F	66	111.0851
9	Gaur	Ritwik	Wayzata HS	11	M	60	110.8050
10	Lin	Richard	Wayzata HS	11	M	62	110.6078
11	Zhu	Elizabeth	Century HS	9	F	68	110.4272
12	Kretzschmar	Sam	Spring Lake Park HS	10	M	62	109.3742
13	Kanti Mahanty	/ Stephen	Edina HS	12	M	66	108.7680
14	Peng	Golden	Century HS	12	M	64	108.2271
15	Huang	Angie	East Ridge HS	10	F	62	108.0714
16	Kundu	Sneha	Wayzata HS	10	F	62	106.1577
17	Kim	Elijah	Shattuck-St Mary's	10	-	62	104.0082
18	Varco	Noel	St. Agnes School	12	M	61	101.9581
19	Ren	Alexander	Duluth East HS	10	M	64	100.6408
20	Cao	Jessica	Eden Prairie HS	10	F	62	99.5064
21	Lee	Jinu	Moorhead HS	11	M	58	96.8046
22	Lu	Ethan	Woodbury HS	10	M	58	95.7879
23	Cao	Yan-Ru	Minnetonka Senior HS	8	-	60	95.2342
24	Mondal	Aaratrika	Wayzata HS	10	F	60	93.7272
25	Kenney	Max	Minnetonka Senior HS	10	-	56	93.4762
26	Kuruvila	Rohan	East Ridge HS	9	M	55	93.2407

Ranl	c Last	First	Team	Grade	Gender	Tota	Power Pts
27	Keel	Bridget	St. Paul Academy	12	F	58	92.6095
28	Sun	Andrew	Mayo HS	12	M	58	91.6425
29	Thakkar	Param	Eagan HS	11	M	60	90.4447
30	Cui	Xinyue (Luna)	Cretin-Derham Hall HS	11	F	56	89.3253
31	Peterson	Sam	International School of MN	12	M	52	88.7839
32	Qiu	Cody	Mayo HS	11	M	54	87.4416
33	Ling	Alice	Eden Prairie HS	10	F	54	86.9930
34	Kim	Dylan	Wayzata HS	10	M	56	86.8222
35	Potini	Sai	Eagle Ridge Academy	7	M	52	86.5309
36	Scofield	Taison	Blaine HS	9	M	56	86.2876
37	Chen	Daniel	East Ridge HS	9	M	56	86.2709
38	Ren	Alex	Minnetonka Senior HS	8	-	54	85.4210
39	Powers-Tiffin	Finn	Central HS	12	M	54	85.3974
40	Shi	Addison	Minnetonka Senior HS	8	F	54	83.8475
41	Zhang	Allison	Sartell HS	8	F	50	83.5969
42	Kazemi	Armita	Century HS	12	F	52	83.5278
43	Witthoft	lan	Highland Park HS	12	M	54	82.5648
44	Ren	Max	Minnetonka Senior HS	10	-	56	81.9256
45	Nichols	Elijah	Parnassus Preparatory School	10	M	50	81.3657
46	Zwank	Bodie	Highland Park HS	12	M	52	81.0151
47	Lin	Yijar	East Ridge HS	11	F	52	80.6302
48	Berchenko	Zack	St. Paul Academy	9	M	54	80.2089
49	Rodriguez	Alex	Alexandria Area HS	9	M	52	80.0209
50 Expo	Rabaey ort To Excel	Mark	Marshall HS	11	M	56	80.0059