

A message from the Executive Director, Tom Young

Well it's here! Another great regular season of Math League is about to wrap up. The State tournament will be just around the corner!

Thanks to all of you who had to improvise and meet at a later date for meet 4. The snowstorm was the first for many of you at a regular season meet. You handled it well. Congratulations!

Good luck to all students participating in the National Math Contest Wednesday, February 7th, or Thursday, February 15th. It's always exciting to tackle the 25 questions on the AMC 12 or AMC 10.

I personally invite you to set aside your calendar for the **Coaches Conference** this summer. It will be held on: **July 12-13 at Augsburg University**. The conference is a great way to meet with fellow coaches, help voice your concerns and ideas for improving the league, and have fun. I hope to see you there this summer.

The Summer Mathematics Institute for grades 7-12 will be held June 24-29 at Augsburg University. **Application due April 15th and is available on our website**. If you are interested in teaching at SMI, shoot me an email.

Good luck to all on meet 5! Have a great regular season-ending party!

A message from Tom Kilkelly, Head of the Problem Writing Team

There were no challenges from Meet 4; the problem writing team did a good job with wording and solutions. Good luck to all on meet 5!

Meet Four photos from St. Paul City Division

Cretin-Derham Hall Team



Highland Team



More St. Paul City Pix

Students relaxing after the meet



Some of the Coaches with a sample of the food!

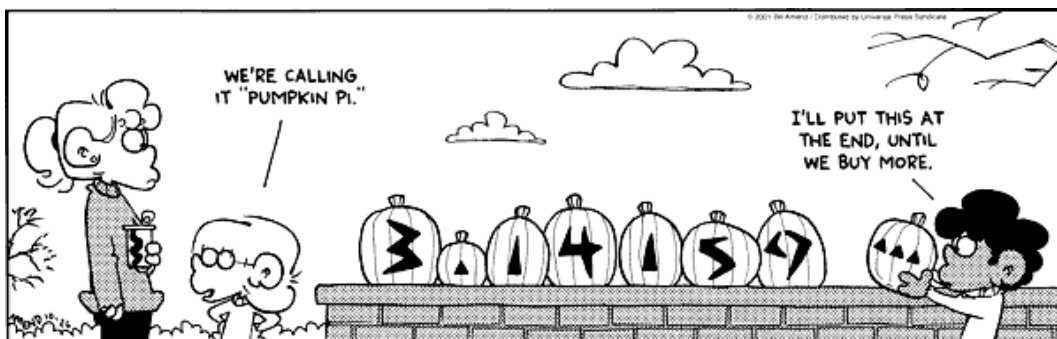


Moving to Three Tiers?

Thanks for all the feedback regarding the ideas to move to three tiers. The full board will be examining the feedback and making a decision as to whether to implement this for next year. Stay tuned.

Speaking of the State tournament, just a heads up...

The tournament will still be held at South St. Paul Senior High on Monday, March 12th, but some changes are being made to the timetable, due to the fact that SSPHS has spring break that week and the whole school is available to us. At the Board executive committee meeting on January 6th, the decision was made to move the timetable of the state tournament up about an hour. Instead of providing dinner, we will be providing lunch from 11:30 to 12:30. The invitational will start at 10:30 and will be given at SSPHS instead of the hotel. We anticipate the Math Bowl will start at 1pm and the tournament will start around 2, finishing around 4:30. Awards will follow and it is our goal to be all wrapped up by 5:15. Look for a more specific timetable in the tournament packet in meet 5 materials.



Don't Forget to enter these Contests!

Video Contest!

There's money to be made! Calling all schools to produce a 90 second video explaining why you like to be involved in the Math League. Student interviews, teacher endorsements, sample problems, or video of practices/meets are all possible components of such a video. Videos are due to the League Office (mathleague@augsborg.edu) by February 15th, 2018. Videos must be sent by, and approved by, the school math team coach. A committee will decide the winners and the winning videos will be shown at the State Tournament.

First prize: \$200 to the math team at winning school

Second Prize: \$150 to the math team at 2nd place school

Third Prize: \$100 to the math team at 3rd place school

Embrace your inner Steven Spielberg!

State Meet T – shirt Design Contest returning!

Each year, the league provides t-shirts for sale to the tournament participants. Do you want to design the t-shirt for the 2018 State Tournament? If so, the one-color design should include these words: "MN State High School Math League", "State Tournament", and "March 12, 2018". Your one-color design should be emailed to mathleague@augsborg.edu in pdf file format by February 5th, 2018. Include name, grade, and school in your email submission. Winner will be notified by February 16th, 2018. The prize? A \$50 VISA gift card!

We received 2 submissions for the T – shirt design. You'll see the winning design at the state meet!

Two other initiatives and a possible change for 2018 – 2019

#1 WEIGHTING INDIVIDUAL SCORES

Talking to coaches over the past couple of summers and at the state tournament, it has been suggested that we weight individual scores, based on some comparative criteria. A student, for instance, would receive more credit for solving a difficult problem (that fewer students across the state solved) than a student that solved a problem that almost everyone solved. Various criteria for weighting student performance have been implemented on our scoring database on a trial basis. Coaches should have access to this. *We are not weighting performance this year*, but the Board will be deciding at the Fall 2018 meeting as to whether to implement weighted performance in 2018-19 (and beyond) and, if so, which method to use.

Explore the scoring database and form an opinion as to a

- a: whether you like this idea
- b: if you do, find a preference as to the weighting method
- c: also, formulate an answer to this question - would you use the weighting system to break ties based on our current system or would only the weighted scores be used to rank individual students?

Express your opinion to your division coordinator. Look for a survey later this year.

#2 PROBLEM DATABASE ON THE SCORING WEBSITE

Another wish list item for several years has been this: can we have a searchable database that we can use to pull up previous years' problems on a certain topic? Guess what? We have a searchable database on the horizon! Our web guru, Gary Kannel, has implemented the database and we are in testing phase. Look for this in the future! Hats off to Gary!

Follow us on Facebook "Minnesota State High School Mathematics League" @MNSHSML and Twitter @MNHSMathLeague

Problem Corner

an effort to spur conversation

If you'd like to contribute a problem or send in a solution, email tyoung@district16.org

Student solutions encouraged!

A solution to a word problem from Newsletter 3

#1

Noelle lives in Minnesota, but once had the pleasure of traveling to Germany during Oktoberfest. After getting tired of the festivities, she visited the neighborhood bookstore looking for a good read. While she perused the books, she noticed the locals (some decked out in their lederhosen and tyroleans) also checking out titles. She was struck by the way they held their head as they did this, reflecting that it was different than how she and others held their heads in bookstores back home. What was the explanation for this unusual "tip of the hat?"

Solution: The titles on the spines of German books are printed from bottom to top as opposed to titles in the US, which are written top to bottom.

New Problem

Mrs. O'Connor has 30 students and 30 desks in her first hour PreCalculus class, all in 6 tidy rows of five desks each. Her students were tired of where they were sitting, so she tried to mix it up a little by making a new seating chart. She used her computer attendance program to generate a random arrangement of the students. Confident that this would assuage their malaise, she asked the students to move to their new desks. After they had moved, a student spoke up. "Mrs. O'Connor, I'm still sitting in the same desk!" Mrs. O'Connor was surprised that someone was still in the same spot. Or should she be? What is the probability that at least one student will be in the same spot after this rearrangement?