



# Math League News

■ **Our Calculator Rule** Our contests allow both the TI-89 and HP-48. You may use any calculator without a QWERTY keyboard.

■ **Send Your Comments** to [comments@mathleague.com](mailto:comments@mathleague.com).

■ **Contest Dates** Future HS contest dates (and alternate dates), all Tuesdays, are December 8 (Dec. 15), January 12 (Jan. 19), February 9 (Feb. 16), and March 15 (Mar. 22). (Each alternate date is the Tuesday following the official date.) For vacations, special testing days, or other *known* disruptions of the normal school day, please *give the contest on the following Tuesday*. If your scores are late, please submit a brief explanation. We reserve the right to refuse late scores lacking an explanation. We sponsor an *Algebra Course I Contest* in April, as well as contests for grades 4, 5, 6, 7, & 8. See [www.mathleague.com](http://www.mathleague.com) for information.

■ **Regional Groupings** Within guidelines, we try, when possible, to honor regional grouping requests for the next school year.

■ **What Do We Print in the Newsletter?** Space permitting, we print every solution and comment we receive. We prepare the newsletter early, so we can use only what we have at that time.

■ **How Do I Change the Spelling of a Student Name?** Please note that an advisor can always return to the Score Report Center to change the spelling of a student's name or to correct a score. We stay out of the loop on such changes. Any advisor noticing a need for such changes should feel free to make them directly.

■ **Can I Add Additional Names and Scores to an Earlier Contest?** One advisor asks, "Since some students did very well in the second contest, can we add their names (with the scores) to the Contest 1 report?" We always allow adding additional names and scores to an earlier contest as long as the additions do not affect the team total previously submitted for the earlier contest.

■ **Administer This Year's Contests Online** Any school that is registered for any of our contests for the 2015-2016 school year may now register at [www.online.mathleague.com](http://www.online.mathleague.com) for the 2015-2016 Online Contests at no cost. The advantages of administering the online versions of our contests rather than the paper and pencil ones are that you do not have to grade your students' papers and that you do not have to submit any scores at our Score Report Center ~ these tasks are done automatically for you when your students take our contests online. If you decide to use this free service, you must set up your account and set the day you will administer each contest at least one day in advance of the actual contest date.

■ **General Comments About the Contest** Henry Valencia said, "Excellent problems!!! Thanks for such a delight!" Mark Luce said, "Nice contest, with a good mix of questions." David Hoffman said, "Once again, these are superlative and creative problems! ... I bought all your books and am making a treasure chest of "problems of the day." Thanks again." Vivian Nelson said, "It would be encouraging for the students to have a couple of easier problems on the first test. Success breeds confidence and, in my experience with this contest, confidence brings better participation. It would be easier for me to recruit participants if they have had more success to begin with."

■ **Question 2-2: Comment** Mark Luce said, "As usual, I love the elegant geometry problem."

■ **Question 2-3: Comments and Appeals (Accepted)** Many advisors wrote with negative reactions to Question 2-3. Some thought that teammates would by implication have to wear different numbers. Others thought that the cartoon was misleading in that it depicted jerseys with different numbers on them. Among the advisors who wrote in were Melissa Banister, Benjamin Dillon, Andrew Farrell, Dave Feinberg, David Hallatt, Sam Koski, Jennifer Neuenschwander, Russ Rogers, and Richard Wright. After considering the totality of the circumstances, the question has been withdrawn and all students will be given credit for the correct answer. Chip Rollinson submitted an alternate solution, saying "One students let the first two players' numbers be 'a' and 'b' which would make the next player's number be '2b-a,' the next '3b-2a,' etc.. he worked around the circle until he got a different expression for a. After setting them equal, he found  $a = b!$  Therefore the next person was also the same, and the next, etc..."

■ **Question 2-4: Comment and Alternate Solution** Mark Luce said, "Easiest way to solve #4 is to just use the awesome capabilities of our graphing calculators."

■ **Question 2-5: Comment and Alternate Solution** Jeff Schwartzman said, "Question 2-5 was one of the easiest problem 5's I've seen in a while." Edward Groh put forward an alternate solution from one of his students, who found the values of x for which the given expression is equal to 1. These values include -1, and 2 from setting the exponent equal to 0, and 1 from setting the base equal to 1 (with -1 already on the list). He then tested the ranges to see which would result in values less than 1.

■ **Question 2-6: Comments** Mark Luce said, "NONE of my students got #6 correctly; that is a bear of a problem!" Chip Rollinson said, "Question #6 proved to be the most challenging. Lots of students just guessed 2015."

Statistics / Contest #2			
Prob #, % Correct (all reported scores)			
2-1	83%	2-4	36%
2-2	69%	2-5	62%
2-3	—	2-6	7%