



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.

■ **Contest Dates** Future HS contest dates (and alternate dates), all Tuesdays, are December 10 (Dec. 17), January 14 (Jan. 21), February 11 (Feb. 18), and March 11 (Mar. 18). (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 annual contests for grades 4, 5, 6, 7, & 8. See 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 2024-2025 school year may now register at www.online.mathleague.com for the 2024-2025 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 Comment About the Contest** Robert Morewood said, "Thanks for another great set of questions. Curiously, our students found #4 harder than #6!"

■ **Question 2-1: Comments and Appeals (Accepted and Rejected)** As many of our advisors noted, there was a bit of a mistake in Question 2-1; it was missing the necessary restriction that x and y be integers. Without that restriction, there are an infinite number of possible values for x and y that satisfy the requirements of the question. Jennifer McCracken, Alison Moser, Richard Newcombe, and Jennifer Polega were among the advisors who brought this omission to our attention. Jennifer McCracken appealed on behalf of a student who answered $2\log(160000)$, which is a correct answer for which credit should be given. Any answer that is correct to four or more significant digits is acceptable. If an advisor is uncertain as to whether to credit a particular answer, please feel free to submit it to us in a comment and we will advise. Jon Graetz appealed on behalf of a student who answered this question with " $x = 8, y = 4$." We understand the inclination to reward the student for getting all the way to the last step of the question correctly, but in the context of a contest there is no partial credit; since the answer is not responsive to the question, it is incorrect and no credit can be given.

■ **Question 2-2: Alternate Solution** One of Robert Morewood's students used the trapezoid area formula, multiplying the average of the bases times the height to get $(\sqrt{200} + \sqrt{50})/2 \times (\sqrt{200})/4 = 37.5$.

■ **Question 2-3: Comment** Robert Morewood said, "Many students had trouble with sign on #3."

■ **Question 2-4: Comment and Appeals (Accepted and Rejected)** As Jon Graetz put it, "the correct answer is $2023 + 2/2023$, or $4092531/2023$, or $2023.0009886307...$ Weirdly, by your rules (4 or more significant digits, correctly rounded), 2023 would be correct!" Yes, as it happens 2023 would be an acceptable answer. Other advisers, including Rhonda de la Mar, Robert Morewood, and Alison Moser, appealed on behalf of students with correctly rounded answers including 2023, 2023.0009886, 2023.000989, and 2023.001. Incorrectly rounded answers such as 2023.000988, on the other hand, should NOT be given credit. Tara Plassmann appealed on behalf of students who gave the answer "2," which also should not be given credit.

Statistics / Contest #2

Prob #, % Correct (all reported scores)

2-1	73%	2-4	24%
2-2	69%	2-5	28%
2-3	69%	2-6	14%