



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.

■ **Our Internet Score Center** All students whose scores you report must have been tested at exactly the same time. Don't list students from any later class period. Instructions for submitting scores appear on each contest envelope. Scores you enter may be reviewed at any time by returning to the Internet Score Center. About 3 weeks after a contest, scores appear on our Web site, www.mathleague.com. Late scores must be accompanied by a brief explanation of the reason for lateness.

■ **Administer This Year's Contests Online** Any school that is registered for any of our contests for the 2016-2017 school year may now register at <http://online.mathleague.com> for the 2016-2017 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 are going to administer each contest at least one day in advance of the actual contest date.

■ **Past Contests Online** Teachers of any school registered for any of our 2016-2017 contests can now purchase online versions of the past contests for any selected grade (4th Grade through High School) for \$9.95 per grade level for use throughout this school year at <http://online.mathleague.com>. For this fee, all students in your school can take all the past contests for a specific grade online. We grade each contest for you, provide you with answers and solutions, and keep statistics on each student's performance.

■ **Send Your Comments** to comments@mathleague.com

■ **We Are on Facebook!** Like us at <https://www.facebook.com/TheMathLeagueInc>.

■ **Contest Dates** Future HS contest dates (and alternates), all Tuesdays, are November 15 (Nov. 22), December 13 (Dec. 20), January 10 (Jan. 17), February 7 (Feb. 14), and March 14 (Mar. 21). Please note that each alternate date is on the Tuesday **following** the official date!! For vacations, special testing days, or other *known* disruptions of the normal school day on a contest date, 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 for information.

■ **Not Yet Received Your HS Contest Package?** E-mail dan@mathleague.com so we can reship. If you just recently got the contests, *please take Contest #1 as soon as possible, even if it's late!*

■ **Carefully Check Your Contest Package** Without opening any contest envelope, please check that the remaining envelopes are numbered 2, 3, 4, 5, and 6. If you're missing a contest envelope, e-mail dan@mathleague.com with your name, the school's name, the full school address, and the number of the contest envelope you're missing. We'll mail you another set of contests right away.

■ **Eligibility Rules** Only students officially registered as students at your school may participate. That's our rule.

■ **Authentication of Scores** To give credibility to our results, we authenticate scores high enough to win recognition. Awards indicate compliance with our rules. Please print the Selected Math League Rules (posted on the same page as this Newsletter) and have students read them and then sign them to confirm knowledge of the rules. *Keep* the signed sheets. Do not send them to us unless we request authentication from you.

■ **General Comments About the Contest** Abdulkirim Akyalcin said, "Thank you for another amazing set of problems." Vivian Nelson said, "Thank you for making a few problems accessible to more of the students. With early success, I expect they will be back next month!" Tim Baumgartner said, "Thank you for an interesting and enjoyable first contest of the year!" James Conlee said, "Great first contest! Accessible to many students across all grades." Kris Dvorak said, "We had several students get a 3 out of 6 this time. The first 3 were fairly easy. Thanks." Edward Groth said, "No trig!" We purposely avoid any questions that require trigonometry until later in the school year when more of our participants have been introduced to this topic in their regular math classes.

■ **Question 1-1: Comment** Benjamin Dillon said, "It may not have been the best idea to have a problem that could be solved simply by using the GCD function on a graphing calculator. On the other hand, it's faster to apply the Euclidean algorithm than to resort to the calculator!"

■ **Question 1-5: Appeal (Denied)** Tim Baumgartner appealed on behalf of students who answered 50 to Question 1-5. If there were only 50 guests at the party, however, there could be two guests eating 1 almond each, two eating 2 almonds each, etc., so that the total number of almonds consumed would be $2x1 + 2x2 + 2x3 + \dots + 2x25$. That would lead to a total of only $2+4+6+\dots+50$ almonds consumed, for a total of $((2+50)/2) \times 25 = 650$ almonds, nowhere near the cap of 2600 almonds specified in the question. The appeal is denied.

■ **Question 1-6: Comments and Appeals (Denied)** Joel Patterson said, "We enjoyed the last question - rather fun that you can use 13 as the only prime for the first number in the sequence on #6." Deanna Abramowitz said, "Problem 6 was a great problem. Only arithmetic needed." Harry Sirockman said, "Although not many of my students answered #6 correctly, they really enjoyed it. I thought it offered our students a legitimate chance to answer the last question and it did not require math that perhaps the younger students have not seen." James Buck appealed on behalf of a student who answered "176, assuming numbers can be repeated. 200 if numbers cannot be repeated." The question, however, specifically calls for "an eleven-term sequence of unequal positive integers." When a student gives two answers, one of which is correct and one of which is incorrect given the question asked, the student cannot be given credit for the correct answer. In this case, the student has not read the question carefully and has decided to qualify her answer so that either interpretation of the question gives her the correct answer. The appeal is thus denied. Jayson Kiang appealed on behalf of students who answered 201. Since a sum of 200 is possible (as explained in the solutions) and the question calls for the "least possible sum," an answer of 201 would be incorrect even if such a sum were possible. This appeal is also denied.

Statistics / Contest #1

Prob #, % Correct (all reported scores)

1-1	89%	1-4	30%
1-2	84%	1-5	31%
1-3	78%	1-6	7%