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. View results at www.themathleague.com before they arrive in the mail.

■ **Upcoming Contest Dates & Rescheduling Contests** Future HS contest dates (and alternate dates), all Tuesdays, are Jan 9 (15), Feb 12 (19), & Mar 19 (26). (Each alternate date is the following Tuesday.) If vacations, school closings, or special testing days interfere, please reschedule the contest. Attach a brief explanation, or scores may be considered unofficial. We sponsor an *Algebra Course I Contest* in April, and contests for grades 4, 5, 6, 7, and 8. Get information and sample contests at *www.themathleague.com*.

■ **Contest Dates for 2019-2020 and Alternate Dates:** HS contest dates for the next school year (and alternate dates), all Tuesdays, are October 15, 2019 (October 22), November 12, 2019 (November 19), December 10, 2019 (December 17), January 7, 2020 (January 14), February 11, 2020 (February 18), and March 17, 2020 (March 24). Please note that each alternate date is the Tuesday **following** the official date!

■ **T-Shirts Anyone?** We're often asked, "are T-shirts available? The logo lets us recognize fellow competitors!" Good news — we have MATH T-shirts in a variety of sizes at a **very** low price. Use them as prizes for high or even perfect scores, or just to foster a sense of team spirit! The shirts are of grey material and feature a small, dark blue logo in the "alligator region." A photo of the shirt is available at our website. There's one low shipping charge per order, regardless of order size. To order, use our website, www.themathleague.com.

■ **Contests for iPads and iPhones** We have iPad/iPhone versions of ALL of our prior contests for grades 4, 5, 6, 7, 8, the High School and the Algebra contests available now, including last year's contests. The link to these iPad/iPhone applications is on the home page of our website, www.mathleague.com. Take note of our current special offer: access to **all** past contests at any selected grade level for **all** students at a given school for the low, low price of only $9.95 for the year!

■ **Administer This Year's Contests Online** Any school that is registered for any of our contests for the 2018-2019 school year may now register at www.online.mathleague.com for the 2018-2019 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.

■ **Students Hungry for More?** Don't forget, we do offer the *Algebra Course 1 Contest* in April!

■ **General Comments About Contest #3:** Cyndee Hudson said, "I thought the test reached all levels – my 9th graders did better than my Calc II class. Thanks for a great test." Abdulkerim Akyalcin said, "I always take the test with my students and really enjoy your problems. Thank you for another great set of problems."

■ **Question 3-3: Comment** Robert Morewood said, "Everyone liked the hot dog problem!"

■ **Question 3-4: Comment and Appeal (Accepted)** Edward Groth said, "I liked your solution, and a couple kids made a similar discovery of an isosceles triangle with a 30-degree vertex angle." Helen Gizas appealed on behalf of a student who answered "75" without a degree symbol. Credit can be given for this answer.

■ **Question 3-5: Appeal (Accepted)** Helen Gizas appealed on behalf of a student who answered "4.444" without any indication that the decimal would be repeating. Credit can be given for this answer, as it can be for any answer that is correct to 4 significant digits.

■ **Question 3-6: Comment and Appeal (Accepted)** One teacher said, "I couldn't solve question number 6 at first because of the missing information. You should have stated that the median of the bottom triangle is collinear with one of the line segments. Without knowing that they are collinear it's impossible to solve this question. How you word the question is not indicating that necessary information to solve the problem." This information is already included, implicitly, in the question. The two triangles each with area 7 together form a bigger triangle with area 14. In any triangle, if a line segment drawn from any vertex to the opposite side divides the triangle into two smaller triangles with equal areas, then the lengths of the two bases of the smaller triangles thus created must also be equal. This is so because the altitude from the common vertex is an altitude for both of the smaller equal area triangles. Furthermore, the questions states "As shown at the right three line segments partition a regular hexagon into four regions." This means the median must be collinear with one of the line segments. Helen Gizas appealed on behalf of a student who answered "41 units." Credit can be given for this answer.

Statistics / Contest #3

Prob #, % Correct (*all reported scores*)

3-1	55%	3-4	34%
3-2	87%	3-5	23%
3-3	43%	3-6	13%