



Math League News

■ **Use the Internet to View Scores or Send Comments** to comments@mathleague.com.

■ **Contest Registration and Books of Past Contests** Register for next year by mail or on the internet right now! Renew now so you don't forget later. *You may ask us to bill you this fall.* We sponsor an *Algebra Course I Contest* and contests for grades 4, 5, 6, 7, and 8. Use the 2011-2012 registration form enclosed in contest package #6 to register for contests or to order books of past contests. Also, keep an eye on our website, as we plan to roll out new products for next year, including new contest offerings!

■ **2011-2012 Contest Dates** We schedule the six contests to be held four weeks apart (mostly) and to end in March. Next year's contest (and alternate) dates, all Tuesdays, are Oct. 18(11), Nov. 15(8), Dec. 13(6), Jan. 10(3), Feb. 14(7), and Mar. 13(6). *Do you have a testing or other conflict?* If so, right now is a good time to put the alternate date on your calendar!

■ **End-of-Year Awards and Certificates** Symbols identify winners. We ship plaques to the advisors. Errors? Write to *Math Plaques*, P.O. Box 17, Tenafly, NJ 07670-0017. Identify the award, contest level, your name, and the school's name and address. The envelope for Contest #5 contained Certificates of Merit for the highest scoring students overall and in each grade for the year. Do you need extra certificates for ties? If so, send a **self-addressed, stamped envelope large enough to hold certificates (you need to use *TRIPLE* postage)** to *Certificates*, P.O. Box 17, Tenafly, NJ 07670-0017. (Please allow one week.)

■ **General Comments About the Contest (and the Year)** Mark Luce said, "A good but tough contest." Josie Mallery said, "Thank you for a good year!" Bill Daly said, "I liked the problems although perhaps they were a bit too easy." Tim Thayer said, "Thank you for the excellent year of competition questions. I try to implement pertinent questions in my curriculum, and the students enjoy discussing the competition in class." Richard Serrao said, "Thanks for another great year!" Albert Roos said, "Our student members enjoyed this contest this year. We look forward to next year." Dave Aufderheide said, "Thank you for all of your time and effort. Our kids really appreciate it." Rob Frenchick said, "Another really good test. There were some easy and some tough questions. This test engaged the students longer than any other test. Thank you." Fred Harwood said, "Beware the Ides of March did not apply to this contest. I thought it was an excellent blend of questions. Well done and congratulations on another excellent year." Justin DeRosa said, "Thank you for continuing the contest (and all of your work) each year. Our school (and I) really enjoyed the contests!" Kipp Johnson said, "This is our first year participating in Math League, and it was everything we had hoped, and more. Each set of problems had a couple which were accessible to anyone who tried, then a couple which were more challenging, and finally one or two which really made you think. (Teacher included.) Thanks for winding up the cycle with a test that wasn't impossible. We'll be doing the Algebra test in another month, and we're already looking forward to next year's Math League. Keep those interesting problems coming!" We at Math League thank you for your participation and for all your kind comments during the course of the year. See you next year!!

■ **Question 6-6: Comments, Appeals (Accepted and Denied), and Alternate Solution** Mark Luce said, "As usual, I love the challenging geometry problem." Fred Harwood said, "I'm looking forward to the variety of methods used to solve #6 as half my group got it." Justin DeRosa appealed on behalf of a student who answered this question with "120 units," as the answer did not specify any units. He also wondered whether and answer of "120 square units" would be considered correct. Since no units were specified in the question and since no units are required in the answer, the appeals committee has ruled that an answer of 120 units is correct. Of course, this also implies that an answer of 120 square units is also correct. A. Mithal appealed on behalf of a student who answered this question with "120.01." The student argued that since the first four significant digits of his answer were correct, he should be given credit. This answer is in fact incorrect, since the student wrote five significant digits and one of those digits was incorrect. If a student chooses to write more than four significant digits, then he must be certain that the fifth digit is correct (as well as all of the others). Dick Gibbs submitted an alternate solution to this question, saying "Each of the right triangles with right angles at the lower right corner has area 90. The diagonal from the right angle to the shaded region partitions the small quadrilateral into two triangles, and each of the right triangles is now partitioned into 3 smaller triangles. It's not hard to show that each small triangle has area 30, so the union of the two right triangles has area 120. By symmetry the total unshaded region is 240. QED"

Statistics / Contest #6

Prob #, % Correct (all reported scores)

6-1	83%	6-4	72%
6-2	80%	6-5	57%
6-3	52%	6-6	44%