Math League News

■ View Scores or Send Comments via the Internet You may view scores at http://www.mathleague.com.

■ Contest Registration and Books of Past Contests Mail the enclosed registration soon. *You may ask us to bill you this Fall.* We sponsor an *Algebra Course 1 Contest* and contests for grades 4, 5, 6, 7, 8. Use the enclosed form to register for contests or **order books of past contests**.

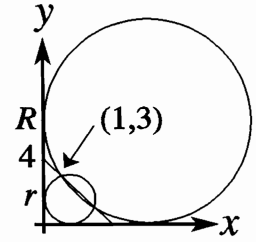
■ 2006-2007 Contest Dates Next year's contest dates (and alternates), all Tuesdays, are: Oct. 24 (17), Nov. 28 (21), Jan. 9 (2), Feb. 6 (Jan. 31), Mar. 6 (Feb. 27), Apr. 10 (3). If you have a *conflict, like the* AMC (Feb. 6) or statewide tests, put *the alternate date* (Jan. 31) on your calendar now!

■ End-of-Year Awards and Certificates Symbols identify winners (we shipped plaques to the advisor). Errors? Write to: *Math Plaques, P.O. Box 17, Tenafly, NJ 07670-0017.* Identify the award, the contest level, your name, and the school's name and address. The Contest #5 envelope contained Certificates of Merit for the highest scoring student overall, and on 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 * *DOUBLE* * postage)** to: *Certificates, P.O. Box 17, Tenafly, NJ 07670-0017.* (Allow 2-3 weeks.)

■ Handing In Contests Early One teacher had a student who figured out the right answer to a question after he had handed it in early. It's best to not allow students to hand in their papers early unless they plan to leave the room right away. If not, encourage them to keep their papers till all papers are collected. Your student learned a good lesson: in life, the first one to the finish line does not always win.

■ Comments About The Contests Becky Sutton said "Thanks for the work you do for these kiddos. The Math League is a tremendous opportunity for them to hone their problem-solving skills." Tyler Somer said "Congratulations to you and your writing team on another outstanding year of contests, both the high school league and the middle school one-timers." Bryan Sullivan said "Great questions, as always." Mike Buonviri was "pleased that we had our first-ever 'two perfect 6's' in the same year. Thanks for making this competition available. Ginny Magid commented "Good contest! Students liked the mix of problems." Linda Muratore said "Thank you for a great series of contests. We'll be looking forward to next year." Robert Morewood thanked us "for another year of stimulating problems."

■ Problem 6-5: Alternate Solution Robert Morewood sent an alternate solution gem. Use the *Power of a Point* theorem to show that the secant containing the common chord of the intersecting circles bisects any comment tangent. At the right, the common tangents are the x- and y-axes, which the circles meet at r and R respectively. The chord through (1,3) and (3,1) intersects each axis at 4 (use ~ △s or use the line's equation). Since 4 is midway between r and R, $r+R = 8$, with very little work needed.



■ Problem 6-6: Comments & An Appeal (Denied) Fraser Simpson said "Your question 6 is mathematically correct as worded. However, I think my students would have preferred you write "ordered triples" when the order matters, especially when the solution is mostly trial and error. While most of them got it, many spent a lot more time looking before committing to the ordered triples solution, just in case." Linda Muratore "especially liked #6-6. The students with the correct answers were very proud of themselves, and the students who had only one triple learned a very good lesson." One formal appeal claimed that the question should have specified "ordered triples." The appeal was sent to Brian Conrad, Professor of Mathematics, Columbia University, New York City. The question read as follows: "In 1953, L.J. Mordell said that there were only four known triples of integers (x,y,z) for which $x^3+y^3+z^3 = 3$. One of these triples is (1,1,1). What are the other three?" Prof. Conrad said that "Mordell posed the problem correctly by saying that each triple has the form (x,y,z). That identification is complete, correct, and unambiguous."

Statistics / Contest #6

Prob #, % Correct (top 5 each school)

6–1	96%	6–4	73%
6–2	98%	6–5	37%
6–3	87%	6–6	44%