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.

■ **Use the Internet to View Scores or Send Comments** to comments@mathleague.com. You can see your results at www.mathleague.com before they arrive in the mail!

■ **Upcoming Contest Dates & Rescheduling Contests** Contest (and alternate) dates, all Tuesdays, are March 6 (Feb. 27), April 10 (3). 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* and contests for grades 4, 5, 6, 7, and 8. Get information and samples contests at *www.mathleague.com*.

■ **2007-2008 Contest Dates** The good news is that our Internet Score Report Center allows us to move contest dates forward. We can now schedule the 6 contests to avoid AMC conflicts, to be held 4 weeks apart (mostly), and to end in March, as many have requested, not April. Next year's contest (and alternate) dates, all Tuesdays, are: Oct. 23 (16), Nov. 20 (13), Dec. 18 (11), Jan. 15 (8), Feb. 12 (5), Mar. 18 (11). If you have a conflict or scheduled regional testing, put an alternate date on your calendar now!

■ **What Do We Publish?** Did we not mention your name? *We use everything we have when we write the newsletter.* But we write the newsletter early, so sometimes we're unable to include items not received early enough. We *try* to be efficient! Sorry to those whose solutions were too "late" to use.

■ **T-Shirts Anyone?** We're often asked "Are T-shirts available? The logo lets us know fellow competitors." Featuring grey shirting and a small, dark blue logo in the "alligator region," we have MATH T-shirts in all sizes at a **very** low price. There's one low shipping charge per order, regardless of order size. You may use Amex, VISA, MasterCard, or Discover. To order, use our Web site, www.mathleague.com or you may phone your order to 201-568-6328; or fax your purchase order to 201-816-0125.
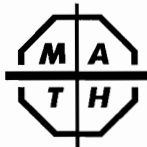
■ **Contest Books Make A Great Resource** Have you seen our contest books? Kids love to work on past contests.

We've enclosed a flyer if you want to order books from us.

■ **General Comments About Contest #4:** Rob Frenchick wrote "I really liked this contest. I had someone get each of the questions correct, but no one got all 6. The kind of thing makes everyone try harder." George Reuter said "I was definitely challenged, and yet the whole contest seemed within the grasp of even a freshman or sophomore who had a good grasp of geometry. Thanks!" Todd Braun said "We enjoyed the contest as all the problems were definitely approachable for all levels of students. My upper level students were dismayed when they realized they often made simple errors in interpretation."

■ **The Internet Score Report Center** Rose Suarez wrote "This method of submitting scores is excellent!"

■ **Problem 4-2: All Students Receive Credit** There was an error in the wording of problem 4-2. We meant to say that the integers that were selected were all different from each other. That was the problem to which our solution applies. As actually worded, 1, 1, 1, 1 is a solution. This was not intended, and we have no way to know what answers were submitted, so we must discard the question. Our way of doing this is to give everyone credit for 4-2. What more can we say but OOOPPPSSS. Sorry about that!

■ **Problem 4-4: Comments & Alt Sol** Doris Rose said her students really enjoyed solving problem 4-4. Student Daniel Zhu, advisor Dean Frederick, and advisor Ben Hedrick all began by factoring $2007 = 3^2(223)$. One of them continued this way: $223 = 243 - 20 = 3^5 - 20$, so we now need to represent 20 as a sum or difference of powers of 3. It's easy to see that $20 = 27 - 9 + 3 - 1$; so $223 = 3^5 - (3^3 - 3^2 + 3^1 - 1)$, and $2007 = 3^2(3^5 - 3^3 + 3^2 - 3^1 + 1) = \boxed{3^7 - 3^5 + 3^4 - 3^3 + 3^2}$.

Statistics / Contest #4

Prob #, % Correct (all reported scores)

Prob #	% Correct	Prob #	% Correct
4–1	86%	4–4	67%
4–2	---	4–5	17%
4–3	58%	4–6	26%