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.

■ **Internet Scoring Center** We encourage schools to submit scores via the Internet. Instructions are included in each of the contest envelopes. About 3 weeks after a contest, scores will appear on our Web site, *www.mathleague.com*. If you submit scores via the Internet, you will receive an email confirmation of our having received your scores. Also, if you use the Internet, you are assured that your school's scores have been received in time to be included in our score report summary. Surface mail may get delayed.

■ **Send Your Comments** to comments(at)mathleague.com

■ **Contest Dates** Future HS contest dates (and alternate dates), all Tuesdays, are Nov 29 (22), Jan 10 (3), Feb 14 (7), Mar 14 (7), and Apr 11 (4). The alternate date is always the preceding Tuesday. In case of contest date conflicts, our rules say that, in case of vacations, special testing days, or other *known* disruptions of the normal school day, you should *give the contest on an earlier day*. If scores are late, please attach a brief explanation. We reserve the right to treat as unofficial late scores lacking an explanation. We sponsor an *Algebra Course I Contest* in April, as well as contests for grades 4, 5, 6, 7, and 8. See *www.mathleague.com* for information.

■ **Not Yet Received Your HS Contest Package?** Phone 1-201-568-6328 so we can reship. If you just recently got the contests, *please take Contest #1 as soon as possible, even if it's late!*

■ **The Score Report and the Cumulative Column** Students on your score report **must** be tested at the exact same time. Don't list students taking the contest during any later class period. Below is part of a score report. The *Total* is for Contest 2 totals only. The (optional) *Indiv. Cumulative* is for *student* totals for the first 2 contests, but students not listed cannot be named in our newsletter. Chris Lewis got 5's on the first 2 contests; her cumulative total is 10. Pat Harris got a 5 and had a cumulative total of 9. Team members may vary each contest—use your school's 5 best scores each time, *and submit additional sheets if needed.*

	Check One Contest Number ☐ ☒ ☐ ☐ ☐ ☐ 1 2 3 4 5 6						Team Score 18	
	1 = Correct, 0 = Incorrect, No Partial Credit							
	Question							
Highest Scoring Participants Please PRINT Last Name, First Name	1	2	3	4	5	6	Total	Indiv. Cumu- lative
1. Lewis, Chris	1	1	1	1	1	0	5	10
2. Harris, Pat	1	1	1	1	1	0	5	9
3. Smith, Lee	1	1	1	0	0	0	3	
4. Nelson, Jan	1	0	1	1	0	0	3	
5. Sun, Ronnie	1	1	0	0	0	0	2	
TEAM TOTALS ▶	5	4	4	3	2	0	18	

Completion of the "Cumulative" column is optional, but *must* be completed for any student who might be listed as a League high scorer.

■ **Carefully Check Your Contest Package** Some advisors told us that their contest packages were missing a contest. Without opening the contest envelopes, check that the remaining envelopes

are numbered 2, 3, 4, 5, and 6. If you're missing a contest envelope, e-mail *dan(at)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.

■ **Authentication of Scores** To give credibility to our results, we authenticate scores high enough to win recognition. Awards indicate compliance with our rules. Please ask students to read the *Selected Math League Rules* on the back of this newsletter and sign a sheet to confirm knowledge of the rules. *Keep* the signed copies. Do *not* send them to us unless we request authentication from you.

■ **General Comments About the Contest** Fraser Simpson said "Thanks for making Contest #1 so accessible. It encourages the younger ones to keep coming." David Ollar said "Very good. No total gifts, no impossible problems." Joe Holbrook said "A good beginning." Eric Kantor said "Thanks for another year of these wonderful contests." Lynette Quigly said "Thanks for the opportunity to be challenged in mathematics." Janet Christ said "The students found it easy this round. They know it will get harder." Marcia Roth said "they were accessible to a wide range of my students." Jack Hook said "This was our first contest. The kids enjoyed it." Sheryl Cabral said "Thanks for a fun contest." Mary Rulla said "The first contest was just right for my students."

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

■ **Problem 1-2: Appeals (accepted & denied)** Barry Butters said "Nearly everyone answered 601." Appeals for 601 were denied. In $n+3n+6n \le 2005$, n is an integer. There are no "half people." Since $n \le 200.5$, n can be 200, so $3n$ is at most 600. An appeal that we should have used "exactly twice" and "exactly three times" was denied. Our math question asked you to show that you knew when to round and when to give an exact answer. Both situations arose in this problem. **Appeals for the answer 1002 were granted.** Here's the alternate interpretation: If Tom scared 2004 people and Sam scared 1002 of them, and Roz scared 334 of the 1002, that makes 2004 scared people, but 3340 scary events. The question is about people, not events, so 1002 is correct.

■ **Problem 1-4: Appeal (denied)** Some appeals said that, since $\sqrt{n}$ & $\sqrt{100}$ had to differ by less than 1, they couldn't differ by 0, so the answer is 38, not 39. In math, a difference can be 0. The appeals were denied. An appeal that "different positive integers" must necessarily be different from 100 was also denied.

■ **Problem 1-5: Alt. Solution** J.E. Josey, Jr. noted that the answer is the sum of the squares $(n+1)^2$ for n from 0 through 4.

■ **Problem 1-6: Appeal (denied)** An appeal that $(a,b,c,d) = (0,1,2,3)$ was denied. The question required that "each pair has a different sum," so $a+d = b+c = 3$ is not permissable.

Statistics / Contest #1

Prob #, % Correct (top 5 each school)

1-1	95%	1-4	62%
1-2	66%	1-5	87%
1-3	88%	1-6	19%