# N E W S L E T T E R

VOL. 40 NO. 1 MIDDLE / JR. HIGH SCHOOL

# Σ SIGMA

2018 – 2019 MATHEMATICS LEAGUE

A HEARTY WELCOME BACK TO ALL OUR PREVIOUS LEAGUE PARTICIPANATS AND A SPECIAL WELCOME TO THE NEW PARTICIPANTS. WE HOPE THAT ALL OF YOU HAVE A GOOD YEAR.

**OFFICIAL CONTEST DATES:** Dates for this year's contests are as follows.

1. Oct. 22 – 26
2. Dec. 3 – 7
3. Jan. 7 – 11
4. Feb. 11 – 15
5. March 25 - 29

**********

**MAILINGS:** Again this year we will be sending the contests/newsletters/forms, etc. **electronically**. We are actually hoping that this will make it easier for you as well. If your school blocks outside emails, please allow the SIGMA mailings to be received. Of course, at the end of the year, the awards will be sent via the U.S. mail.

**********

**RESULTS**: Please be prompt in returning the contest results. If the contest dates fall on school vacations or conflict with school activities, please attempt to give the tests within 5 school days either before or after the specified dates.

Contest results can be returned to us via the U.S. postal service or electronically. If sent by "snail" mail, send them to **SIGMA, 5100 NORMA BLVD, LINCOLN, NE 68506.**

**********

**CONTESTS:** The contests may contain material that is new or strange for your students. Our contests do not follow textbook sequence and are not necessarily textbook problems.

**********

**COMMENT:** If there are obvious typing errors (hopefully none) please correct them. However, refrain from explaining the problem. We urge you to be cautious about the type of information you give students to clarify a problem. All students should have the same opportunity for fair competition.

**DIRECTIONS FOR COMPLETING THE REPORTING FORM:** Check the enclosed page with the form, it has a completed example. Some additional instructions are also given on the left portion of the partial example. It is to your school's advantage to list 12 names under each grade – if you have at least 12 in each grade participating. Suggestion: List the scores in decreasing order of their score.

**********

**RUNNING, ACUMULATING , SCORE SHEET:** You will need to keep a record which contains student accumulated total scores on the contests. Individuals are given an award at the end of the 5th contest. All students meeting a certain minimum score of the possible 40 points are given this award.

We suggest that a spreadsheet could be the most efficient way of keeping track of the students' scores. However, if you want a different form, we can supply you with a different kind of form if you request it.

**MULTIPLE TEACHER FORM:** If you have multiple teachers administering the test, a helpful form that could be used is also being sent electronically. Make a copy for each teacher for each contest – then each teacher returns the form to you and from that you can fill out the reporting form that is to be returned to us. **DO NOT SEND THE STUDENTS' TESTS and send only ONE reporting form for your school (unless you are competing in all 4 grades – then you will send 2 reporting forms). One of the reporting forms will have the results of grades 6, 7 & 8 and the other form will have grade 9.**

**********

**TELEPHONE NUMBERS:**

Home: Leona (402) 489-8376
Jerry (402) 423-1766 (Let ring 6 times to leave a message.)

e-mail: lpenner@windstream.net (The character l is a lower case letter, not the number one.)
jbeck@inebraska.com

**********

## NOTE 1: ******* CALCULATORS ARE PERMITTED *******

## NOTE 2: OUR WEBSITE IS sigmamathcontest.com

You may download newsletters, tests, registration form and book order form. All are PDF files. You will each be sent a password for Contest #2 which you will be able to use to download future contests.

**********

**FOR FUN:** From time to time mathematical items and/or quotes will be included as part of the newsletter. We hope you will find these enjoyable.

The **triangular numbers** are 1, 3, 6, 10, 15, 21, 28, 36, etc.

1. The sum of two consecutive triangular numbers is a square number.
   For example: $1 + 3 = 2^2$
   $15 + 21 = 6^2$

2. 8 times a triangular number plus 1 is always a square number.
   For example: $8 \times 1 + 1 = 3^2$
   $8 \times 10 + 1 = 9^2$
   $8 \times 28 + 1 = 15^2$

Can your students prove these two items?