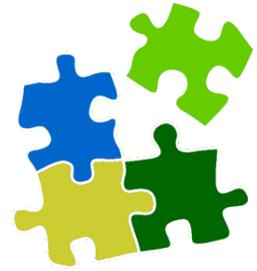## 2018-19 Puzzle Contests
Puzzle Contest #2

Grades 5up Puzzles:

1. **The witch Margali Szardos tells** the truth on all even dates and lies on all odd dates. One day she made exactly four of the following five statements. Which one she did NOT make that day?
   a) I have a prime number of acquaintances
   b) I have as many acquaintances among witches as among ghosts
   c) 343 is a perfect cube.
   d) I always tell the truth.
   e) I hate exactly three of my acquaintances.
      (25 pts.)

2. **Old Gremlin went to Witch Elvira's Apothecary to buy** spider ointment, snake elixir, belladonna extract, and caterpillar juice for his aching bones. He found these remedies on the apothecary shelf in a vile, a glass, a jar, and a jug. Caterpillar juice and snake elixir were not in a vile, a vessel with the spider ointment was between the jar and the vessel with the belladonna extract; the jar is not with the spider ointment or the caterpillar juice; the glass was next to the jug, and a vessel with spider ointment. In which vessel is each liquid stored?
(35 pts.)

Solutions deadline is November 25
Please submit your solutions to anna.charny@metrowestschool.com
or bring them to the office

3. A palindrome is a magic 'symmetrical' number that

remains the same when read from left to right or right-to-left (example: 12344321). The Warlock Mathematical Society offered a prize for the largest 2018-digit prime palindrome submitted by Halloween 2018. The prize was promised to be equal to the sum of all digits in the palindrome, in gold Krones. How many gold Krones does the Society need to prepare by Halloween to make sure they have enough?
(40 pts.)

Solutions deadline is November 25
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