

2016

Photo of Euler Semimagic Square With Exercises.

Jeremiah Farrell

Butler University, jfarrell@butler.edu

Follow this and additional works at: http://digitalcommons.butler.edu/facsch_papers



Part of the [Other Mathematics Commons](#)

Recommended Citation

Farrell, Jeremiah, "Photo of Euler Semimagic Square With Exercises." *Gathering 4 Gardner* / (2016): -. Available at http://digitalcommons.butler.edu/facsch_papers/958

This Article is brought to you for free and open access by the College of Liberal Arts & Sciences at Digital Commons @ Butler University. It has been accepted for inclusion in Scholarship and Professional Work - LAS by an authorized administrator of Digital Commons @ Butler University. For more information, please contact omacisaa@butler.edu.

Leonard Euler, 1707-1783, one of the greatest and most prolific of all mathematicians was very often used by Martin Gardner in his *Scientific American* column.

Euler invented the so-called semi magic squares where different symbols occurred in every row and column of the square. The diagonals could not conform.

Here is a 4x4 example where the symbols are number, shape and color.

Prob 1: Arrange the 16 pieces into a semi magic square.

Prob. 2: If two players alternately place a piece of their choice on a 4x4 grid, who can win this game? A piece can be played only if its 3 symbols do not match any other symbol in its row or column.

If the pieces start in a face-up kitty, it may be that 2nd can always win. IF the pieces start face down, either player could win.

