

50. (Mayo 2008) Cuadrados Mágicos Paradójicos

Escrito por Pedro Alegría (Universidad del País Vasco)
Jueves 01 de Mayo de 2008 00:00

Todavía hoy en día el libro *"Mathematics, Magic and Mystery"* de **Martin Gardner**, publicado en 1956, constituye una fuente inagotable de ideas matemáticas que pueden ser aplicadas a juegos de magia o entretenimientos lógicos. En las bodas de oro de nuestro rincón volveremos a referirnos a las

[paradojas geométricas](#)

, tema ya tratado precisamente al celebrar nuestras bodas de plata, en febrero de 2006.

En el libro homenaje a **Martin Gardner**, titulado *"The Mathemagician and Pied Puzzler"*, y que puedes descargar gratuitamente

[aquí](#)

, se incluye un artículo de

Stewart Coffin

titulado

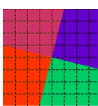
"Polly's Flagstones"

donde se plantea la siguiente aparente paradoja.

Consideremos un cuadrado cualquiera el cual recortamos en cuatro piezas mediante dos cortes perpen



Como es fácil deducir, en realidad el segundo cuadrado es mayor que el primero. El ligero aumento del lado del cuadrado se compensa con la aparición del cuadrado central. En las siguientes figuras se observa dicha variación:



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En este artículo se presentan algunos ejemplos de cuadrados mágicos paradójicos, que son aquellos en los que la suma de los números en las filas, columnas y diagonales principales es la misma, pero la suma de los números en las diagonales secundarias no lo es.

Los cuadrados mágicos paradójicos se pueden encontrar en muchos lugares, como en los libros de magia, en los juegos de mesa, en los puzzles, etc. En este artículo se presentan algunos ejemplos de cuadrados mágicos paradójicos de 4x4, 5x5, 6x6, 7x7, 8x8, 9x9, 10x10, 11x11, 12x12, 13x13, 14x14, 15x15, 16x16, 17x17, 18x18, 19x19, 20x20, 21x21, 22x22, 23x23, 24x24, 25x25, 26x26, 27x27, 28x28, 29x29, 30x30, 31x31, 32x32, 33x33, 34x34, 35x35, 36x36, 37x37, 38x38, 39x39, 40x40, 41x41, 42x42, 43x43, 44x44, 45x45, 46x46, 47x47, 48x48, 49x49, 50x50, 51x51, 52x52, 53x53, 54x54, 55x55, 56x56, 57x57, 58x58, 59x59, 60x60, 61x61, 62x62, 63x63, 64x64, 65x65, 66x66, 67x67, 68x68, 69x69, 70x70, 71x71, 72x72, 73x73, 74x74, 75x75, 76x76, 77x77, 78x78, 79x79, 80x80, 81x81, 82x82, 83x83, 84x84, 85x85, 86x86, 87x87, 88x88, 89x89, 90x90, 91x91, 92x92, 93x93, 94x94, 95x95, 96x96, 97x97, 98x98, 99x99, 100x100, 101x101, 102x102, 103x103, 104x104, 105x105, 106x106, 107x107, 108x108, 109x109, 110x110, 111x111, 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