

SUDOKU VARIANTS: by Rodolfo Kurchan

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1) ANTI MAGIC SQUARE MATH SUDOKU

The board is divided in 9 squares

1	2	3
4	5	6
7	8	9

In the squares 2, 3, 4, 6, 7, 8, 9 the numbers of 1, 2 and 3 digits that are formed in a ladder are multiples of this numbers.

Example Multiples

Box 7, the 3 numbers must be multiples of 7, and 7, 28 and 945 are.

7		
2	8	
9	4	5

Box 8, the 3 numbers must be multiples of 8, and 8, 32 and 168 are.

8		
3	2	
1	6	8

In the Square 1 you have to make an Anti Magic Square with row sums 11, 18, 16, columns sums 17, 8, 20 and the 2 diagonals sum 10 and 12.

Anti Magic Squares are the squares that his rows, columns and diagonals sum different https://en.wikipedia.org/wiki/Antimagic_square

	10	17	8	20	12
	↙	↓	↓	↓	↘
11	→				
18	→				
16	→				

In Square 5 the columns and the row of the letter H should sum 13 each

		13		13	
		↓		↓	
			2		
13	→				
			9		

2) SELF REFERENTIAL SUDOKU

Normal Sudoku rules apply

There are ten self-referential numbers, nine in the 9 rows and one in the 5th column.

In the black circles one number is the double of the other number.

In the white circles one number is the triple of the other number.

Not all circles are shown in the board.

Example of self-referential numbers:

Each digit is in his own position or shows the position where the digit should be.

For example if 1 is not in his position, number 1 will be in the position of the number in 1st position

Some self-referential numbers:

123456789 because each number is in his position

759428163 because as 7 is in position 1, in the position 7 goes number 1.

As 5 is in position 2, 2 goes in position 5.

As 9 is in position 3, 3 goes in position 9.

As 4 is in position 4 is OK.

As 8 is in position 6, 6 goes in position 8.

Other self-referential numbers are:

391876542 596413872

725936184 832546917

3) HEPTOMINO C SUDOKU

Normal Sudoku rules apply

In numbers 1 to 9 goes 9 different letter C heptomino

Example 1 to 4:

	1							
				2				
							3	

Each heptomino C will repeat exactly one of his own number, and other digits will be differently

	1					2		
				2				
							3	
1								
						3		

4	1			6	3	2	9	8
8				2		6	7	5
2							3	
1							5	
7	9						4	
						3	1	

In the black circles one number is the double of other number.
 In the white circles one number is the triple of other number.
 Not all circles are shown in the board.

		9						
					8			
								7
6								
						5		
			4		○			
	○	●		3	○			●
					●		2	
	1		●				○	