Logic Masters India

presents :

March 2011 Monthly Sudoku Test

Instruction Booklet

On 20 March, the sun reaches the vernal equinox, heralding a symbolic revival of nature in the northern hemisphere of the planet. We, the authors of the book « Florilège de variantes de sudoku », have risen to the challenge of creating sudoku puzzles inspired by the theme of spring. Alternately playing with words (« spring » or « printemps » in French), date or trying to symbolize the fauna and flora in the different grids, alternating between classical grids, known variants or innovations to achieve this, we propose for the tournament a panel of varied grids . The process has requested to the authors an effort of imagination in order to create grids being interesting to solve and symbolizing the theme of spring. We hope you enjoy this double goal and you have as much fun to solve the grids as we had to create them.

Puzzle types and points:

No	Puzzles	Points
1	Alpha-frame sudoku	40
2	Classic sudoku	50
3	Consecutive sudoku	50
4	Greater than and Killer	60
5	Sudokurve	60
6	Arrow sudoku	65
7	Sundoku	80
8	Extra-regions sudoku	95
9	Jigsaw wordoku	95
10	Mixed sudoku	100
11	Killer 0-8	140
12	Double sum sudoku	165
	Total	1000

Bonus:

Puzzles solved correctly	Points/minute saved
10	1
11	2
12	5

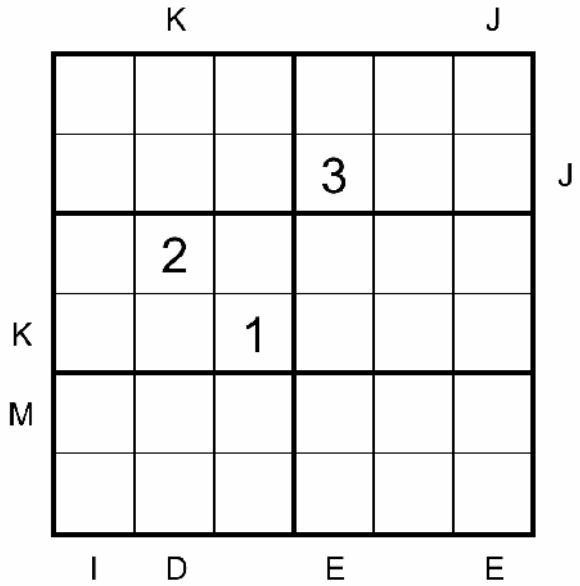
Important points:

- Test dates are 26th and 27th March.
- Page for submission: http://logicmastersindia.com/M201103S/
- Test duration is 120 minutes.
- The grids are placed in order of their points.
- All competition grids are 9x9 Sudokus, except Sudokurve.
- No kind of outside help of solvers is to be used.
- The Answer key will be either 2 rows or 2 columns or a combination of row and column, **which will be marked on each grid (pdf file and interface). A separate answer form will be available for paper solvers.**

Instructions and examples:

1. Alpha-frame sudoku

Write a single number from 1 to 9 (1 to 6 in the example) in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box (2x3 box in the example). Each letter outside the grid represents a number from its position in the alphabet (see below). This number is equal to the sum of the first three numbers in the corresponding row or column in the given direction (for the example: this number is equal to the sum of the first two numbers in the corresponding column and first three numbers in the corresponding row).



A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

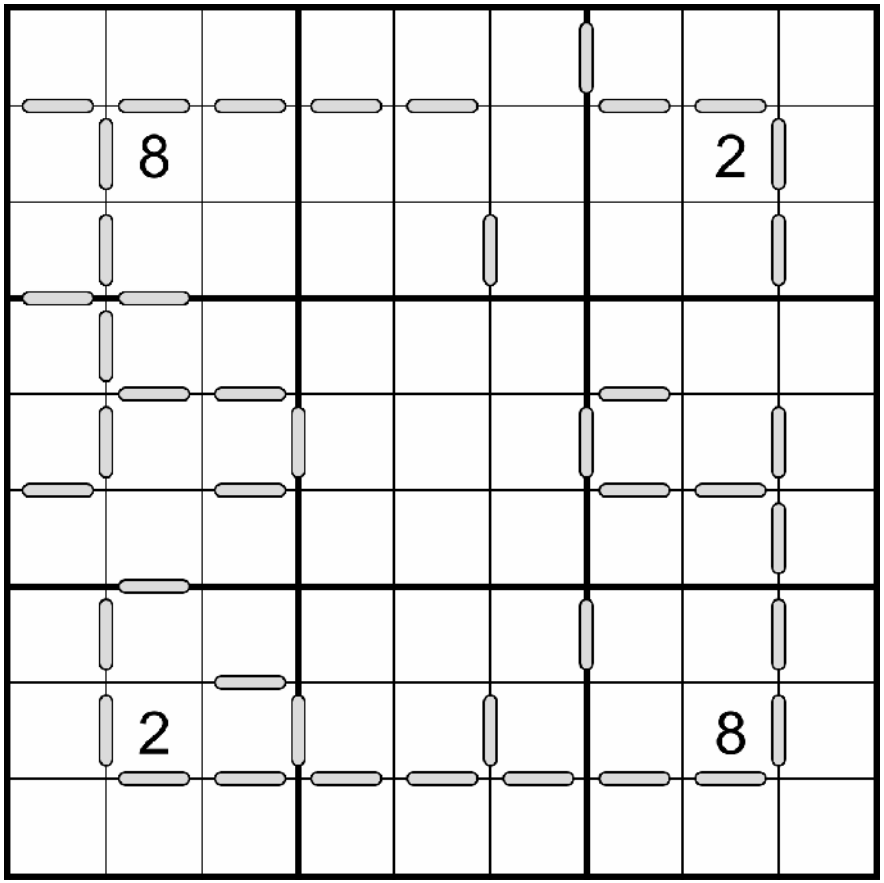
2. Classic sudoku

Write a single number from 1 to 9 in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box.

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

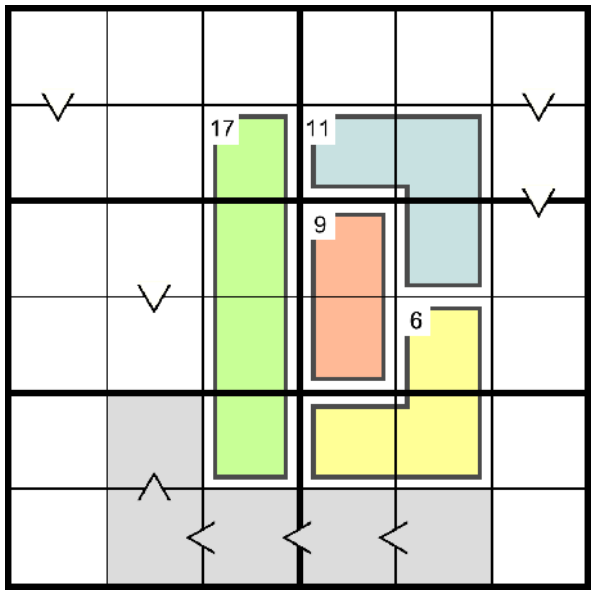
3. Consecutive sudoku

Write a single number from 1 to 9 in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box. A bold grey line separates always and only two neighbouring cells containing consecutive digits.



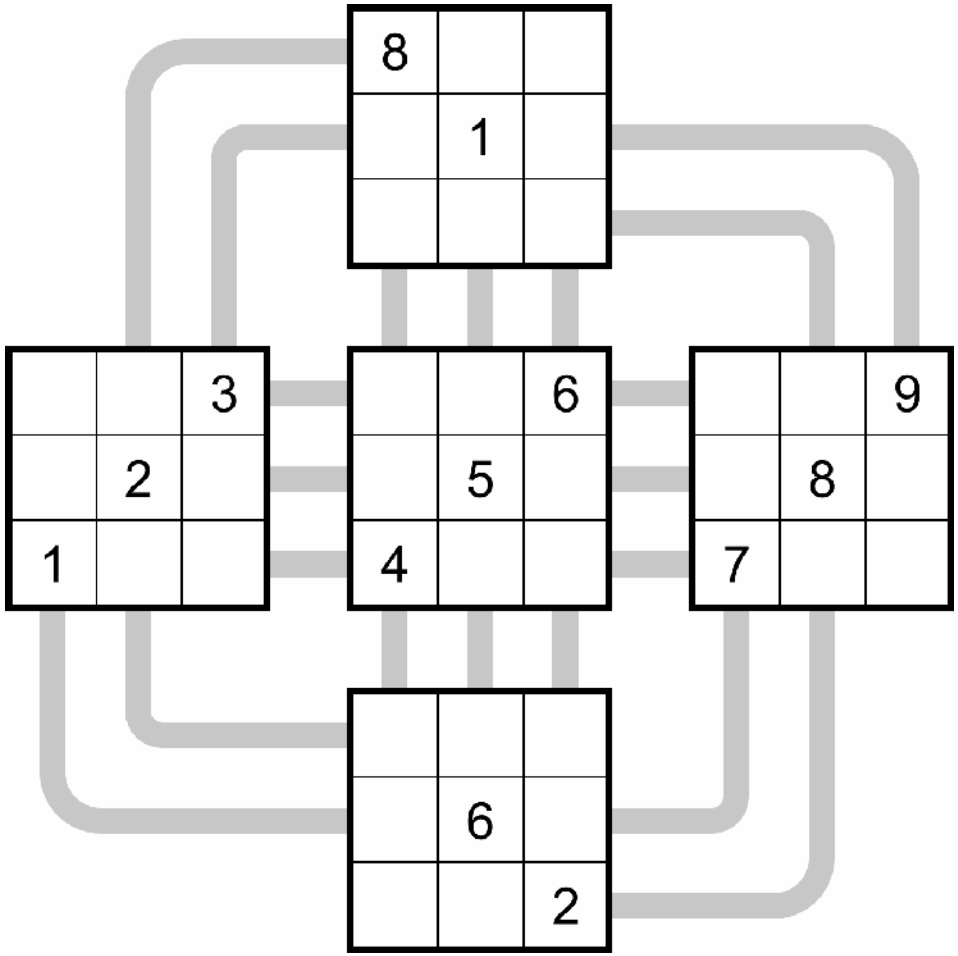
4. Greater than and Killer

Write a single number from 1 to 9 (1 to 6 in the example) in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box (2x3 box in the example). The value on the top-left corner of a shaded area is equal to the sum of this area's digits. No digit can repeat within an area. Every inequality (< >) in the grid must be respected.



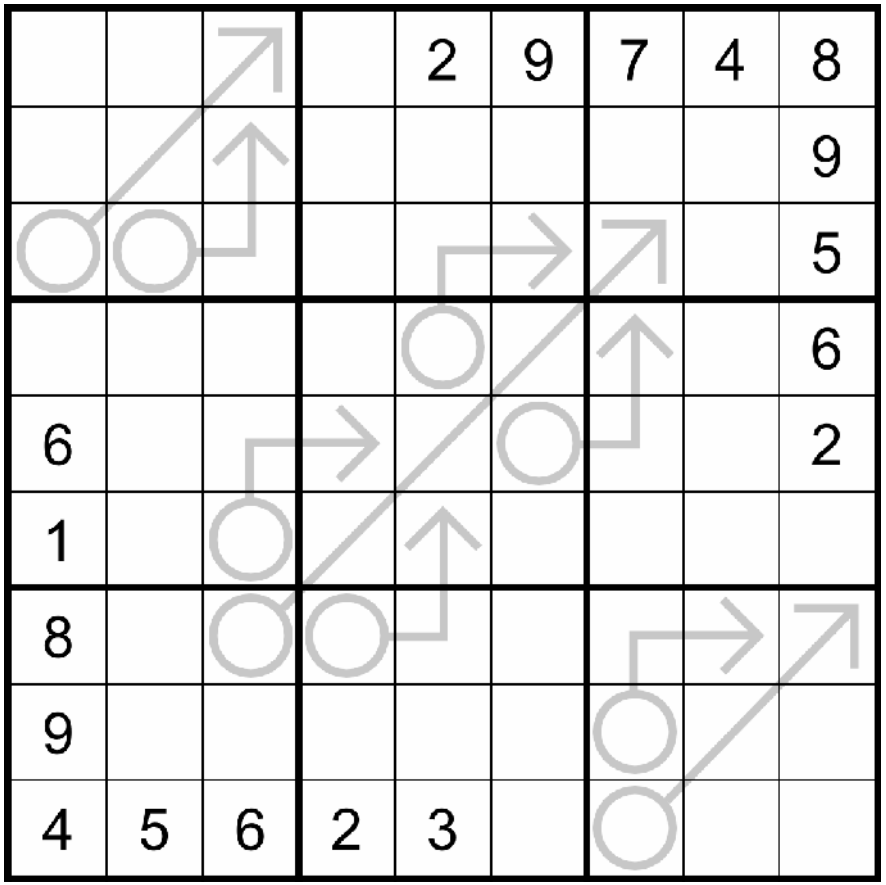
5. Sudokurve

Write a single number from 1 to 9 in each cell such that each number appears exactly once in every row and bolded box. Unlike a standard sudoku, the rows here sometimes bend along the indicated curves. Each row contains exactly 9 cells. (Note: the competition puzzle will use a different geometry than the example, but the concept of "bending rows" will be the same.)



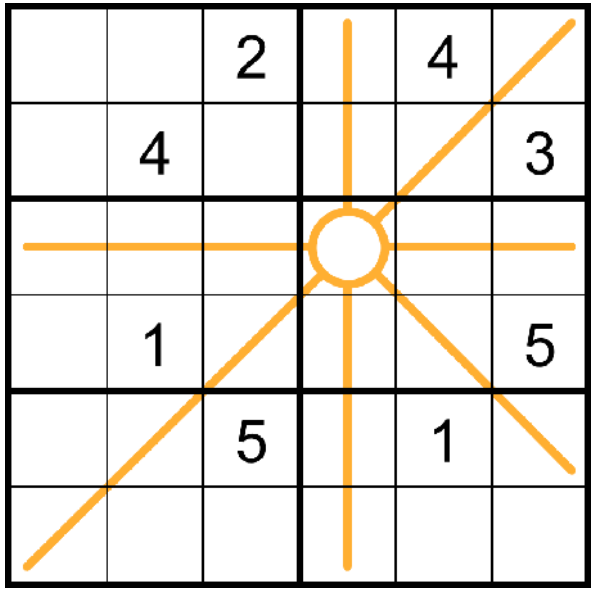
6. Arrow sudoku

Write a single number from 1 to 9 in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box. Arrows are drawn in the grid. Within an arrow, the digit in the circled cell is equal to the sum of digits on the rest of the arrow.



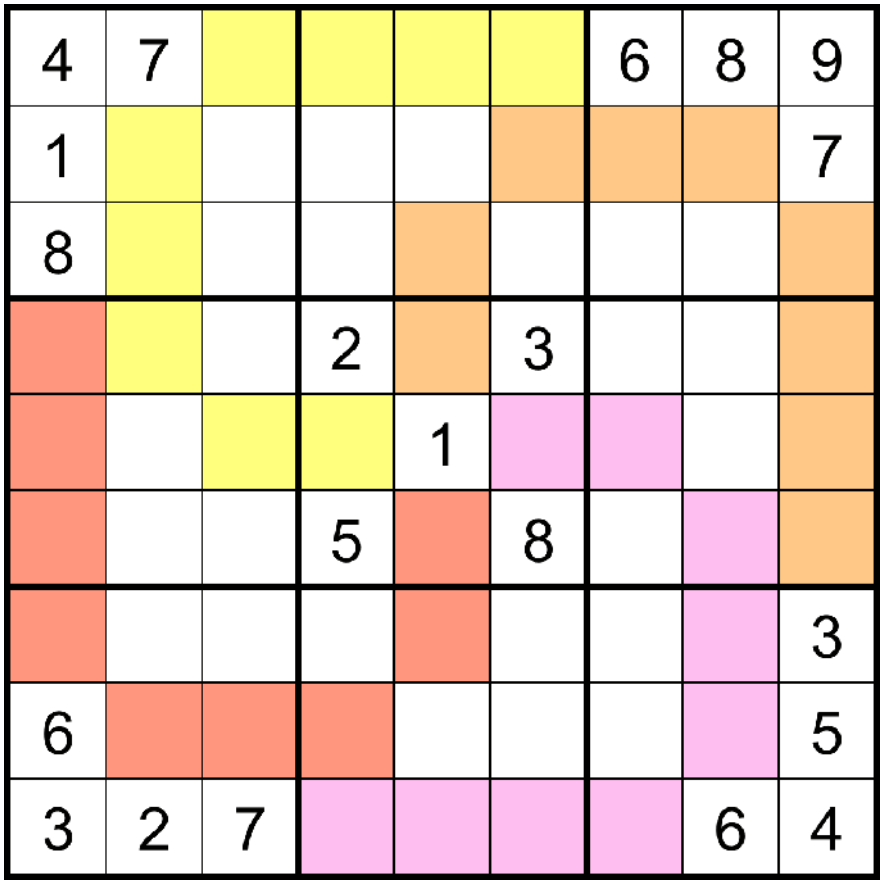
7. Sundoku

Write a single number from 1 to 9 (1 to 6 in the example) in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box (2x3 box in the example). The sun and its rays are drawn in the grid. Rays lose intensity with distance from the sun, so numbers on each ray are strictly decreasing. The central cell (the sun) is not part of any ray.



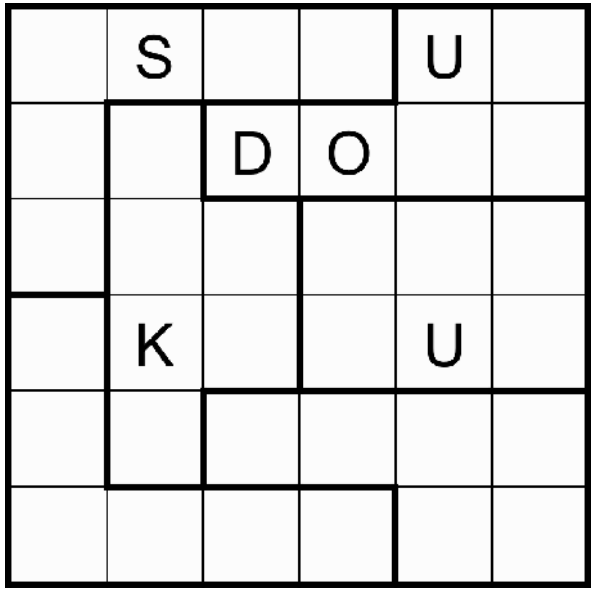
8. Extra-regions sudoku

Write a single number from 1 to 9 in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box. Each group of nine coloured cells must also contain the numbers 1 to 9.



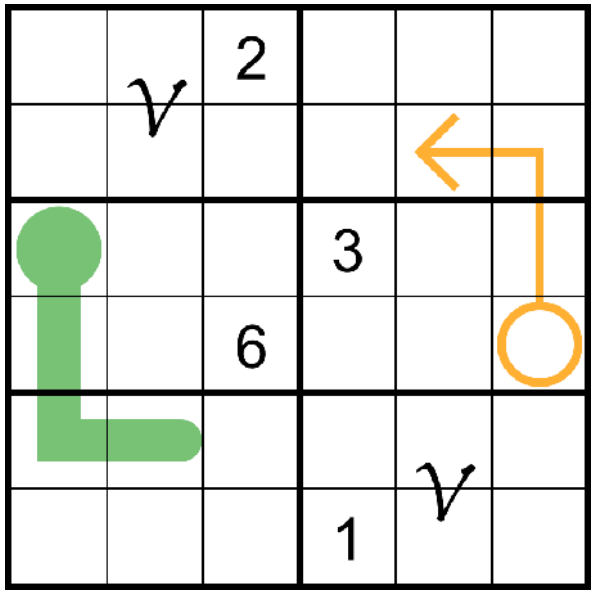
9. Jigsaw Wordoku

Write a single letter in each cell such that each letter appears the same number of times (some letters can be repeated) in every row, column, and bolded irregular box. Repeated letters can not be horizontally or vertically adjacent.



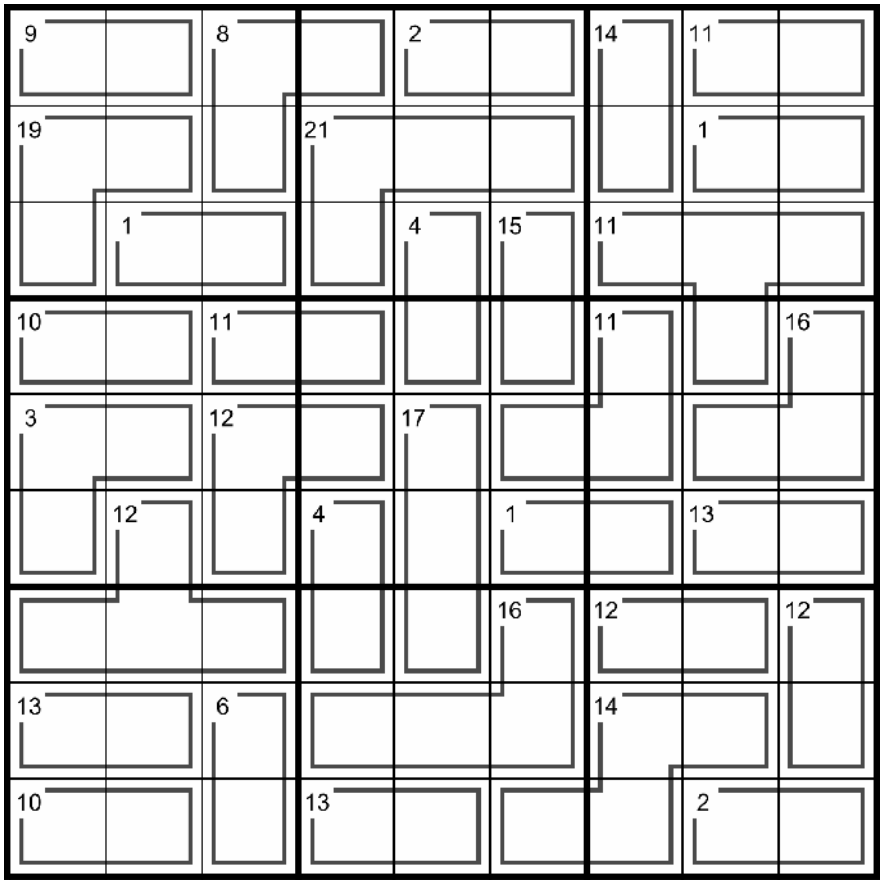
10. Mixed sudoku

Write a single number from 1 to 9 (1 to 6 in the example) in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box (2x3 box in the example). Thermometers, arrows and inequalities are drawn in the grid. Digits on a thermometer are strictly increasing from the bulb. Within an arrow, the digit in the circled cell is equal to the sum of digits on the rest of the arrow. Every inequality (< >) in the grid must be respected.



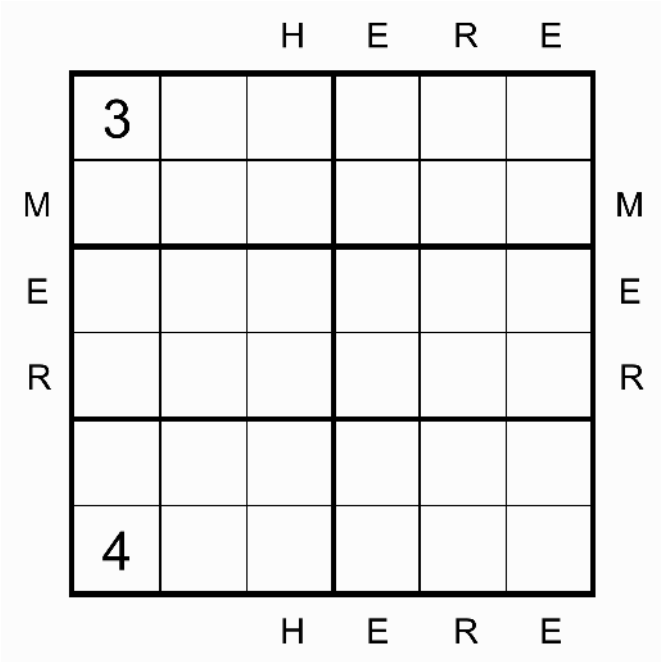
11. Killer 0-8

Write a single number from 0 to 8 in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box. The value on the top-left corner of a shaded area is equal to the sum of this area's digits. No digit can repeat within an area.



12. Double sum sudoku

Write a single number from 1 to 9 (1 to 6 in the example) in each cell such that each number appears exactly once in every row, column, and bolded 3x3 box (2x3 box in the example). Each letter outside the grid represents a number from its position in the alphabet (see below). The two identical letters on the outside of a row or column indicate that you can find at least two ways to get the corresponding number by adding some neighboring cells in the corresponding row or column.



A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

Solutions:

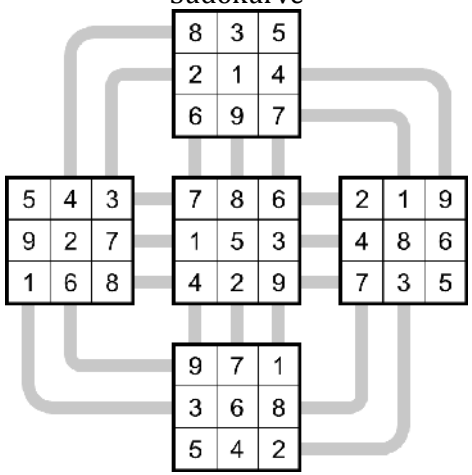
Alpha-frame sudoku

1	6	3	5	2	4
2	5	4	3	1	6
3	2	5	6	4	1
6	4	1	2	3	5
4	3	6	1	5	2
5	1	2	4	6	3

Classic sudoku

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

Sudokurve



Arrow sudoku

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

Consecutive sudoku

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

Greater than and Killer

3	6	1	5	2	4
2	4	5	1	6	3
1	5	6	3	4	2
4	3	2	6	1	5
5	1	4	2	3	6
6	2	3	4	5	1

Sundoku

3	6	2	5	4	1
5	4	1	6	2	3
4	5	6	1	3	2
2	1	3	4	6	5
6	2	5	3	1	4
1	3	4	2	5	6

Extra-regions sudoku

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

Jigsaw wordoku

O	S	U	D	U	K
K	U	D	O	S	U
U	O	S	U	K	D
D	K	U	S	U	O
U	D	K	U	O	S
S	U	O	K	D	U

Mixed sudoku

1	4	2	6	3	5
6	3	5	4	1	2
2	5	4	3	6	1
3	1	6	5	2	4
4	6	1	2	5	3
5	2	3	1	4	6

Killer 0-8

6	3	5	1	2	0	8	4	7
8	4	2	5	7	3	6	0	1
7	0	1	6	4	8	5	3	2
4	6	8	3	0	7	2	1	5
0	1	7	2	6	5	4	8	3
2	5	3	4	8	1	0	7	6
1	2	4	0	3	6	7	5	8
5	8	0	7	1	2	3	6	4
3	7	6	8	5	4	1	2	0

Double sum sudoku

3	4	1	6	2	5
6	2	5	3	1	4
5	6	3	2	4	1
2	1	4	5	6	3
1	3	6	4	5	2
4	5	2	1	3	6