



Round 4 – Part 2: Variant Categories

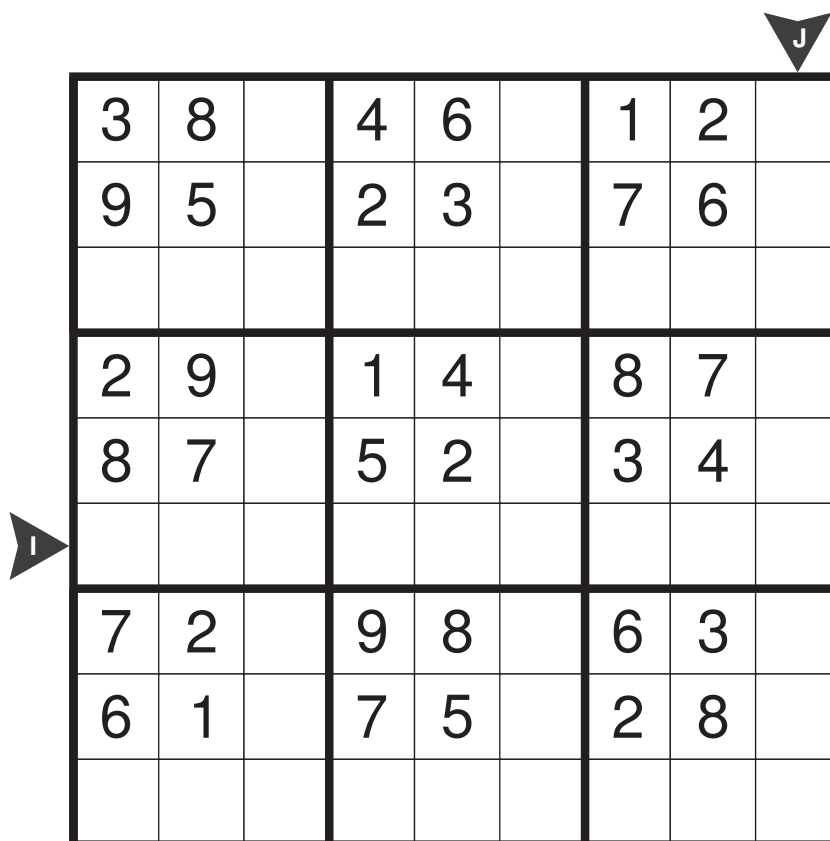
Duration: 60 minutes

This round will contain 2 9x9 Classics, and then some variants which are based on different categories of variations. Few of these are repeats from previous rounds, but most will be new. They are similar to concepts used in previous rounds though. The points distribution for the actual round will be released around 1 week prior to the competition. For now, this is just a sample booklet to give an idea of the variants and give some practice to newcomers. The points given along with the Sudokus are just to give an idea of things, and not final in any way.

Standard Sudoku

6 points

Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and 3X3 box.



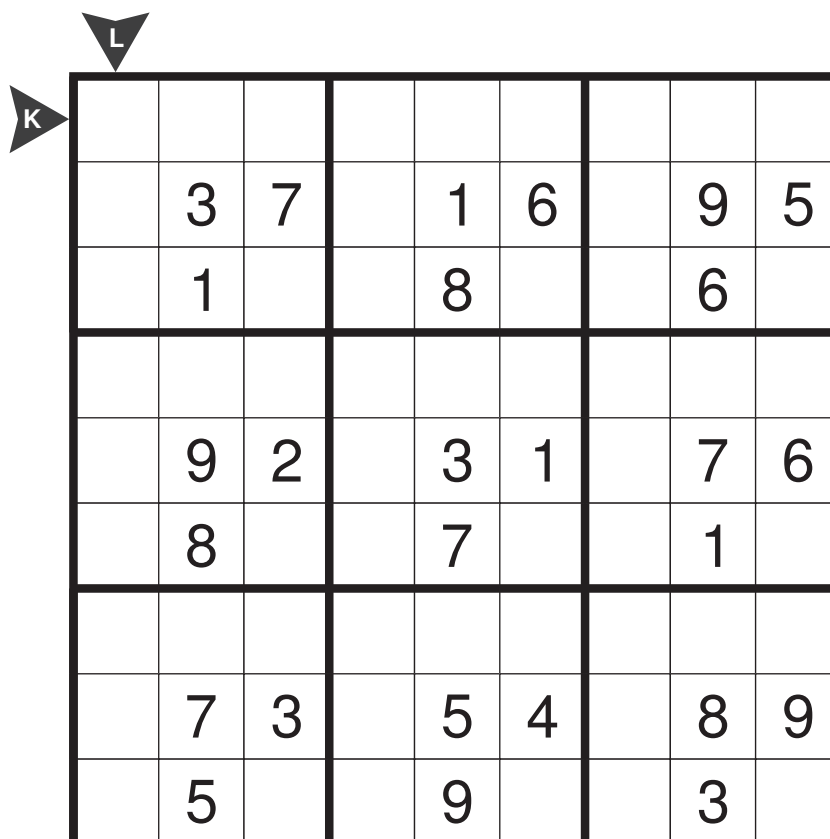
A 9x9 Sudoku grid with 6 points. The grid is divided into 3x3 boxes. The top-right box is labeled 'J' and the bottom-left box is labeled 'I'. The grid contains the following numbers:

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

Standard Sudoku

7 points

Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and 3X3 box.



A 9x9 Sudoku grid with 7 points. The grid is divided into 3x3 boxes. The top-left box is labeled 'L' and the bottom-right box is labeled 'K'. The grid contains the following numbers:

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

Category: Substitution

Pencil Mark
Sudoku

6 points

Apply standard
Sudoku rules.In some cells you
find all allowed
candidates for the
specific cell.

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

Pencil Mark
Sudoku

12 points

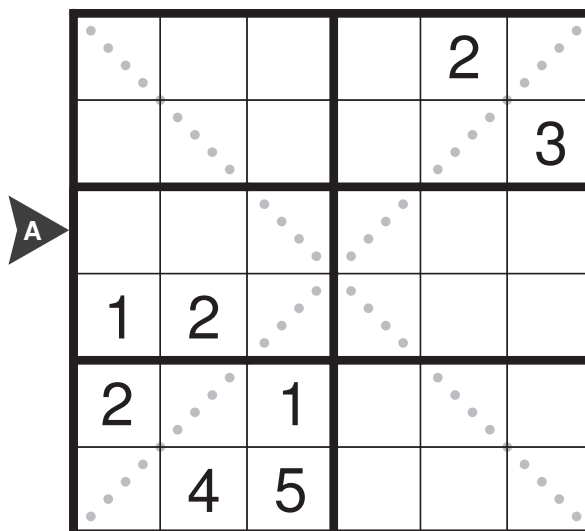
Apply standard
Sudoku rules.In some cells you
find all allowed
candidates for the
specific cell.

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

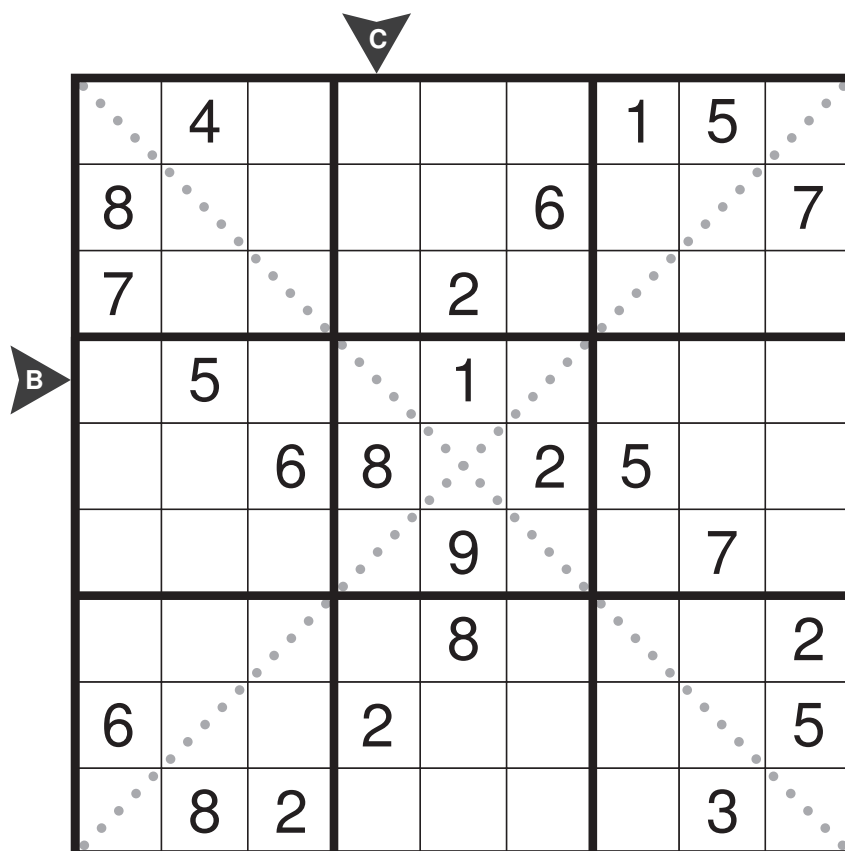
Category: Standard

Diagonal
Sudoku

6 points

Apply standard
Sudoku rules.Additionally, each
extra main diagonal
(marked by a line)
must contain digits
from 1-6.Diagonal
Sudoku

12 points

Apply standard
Sudoku rules.Additionally, each
extra main diagonal
(marked by a line)
must contain digits
from 1-9.

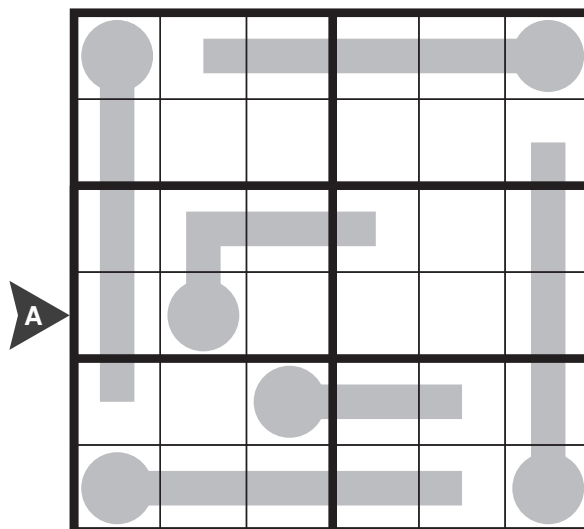
Category: Neighbours

Thermo
Sudoku

2 points

Apply standard
Sudoku rules.

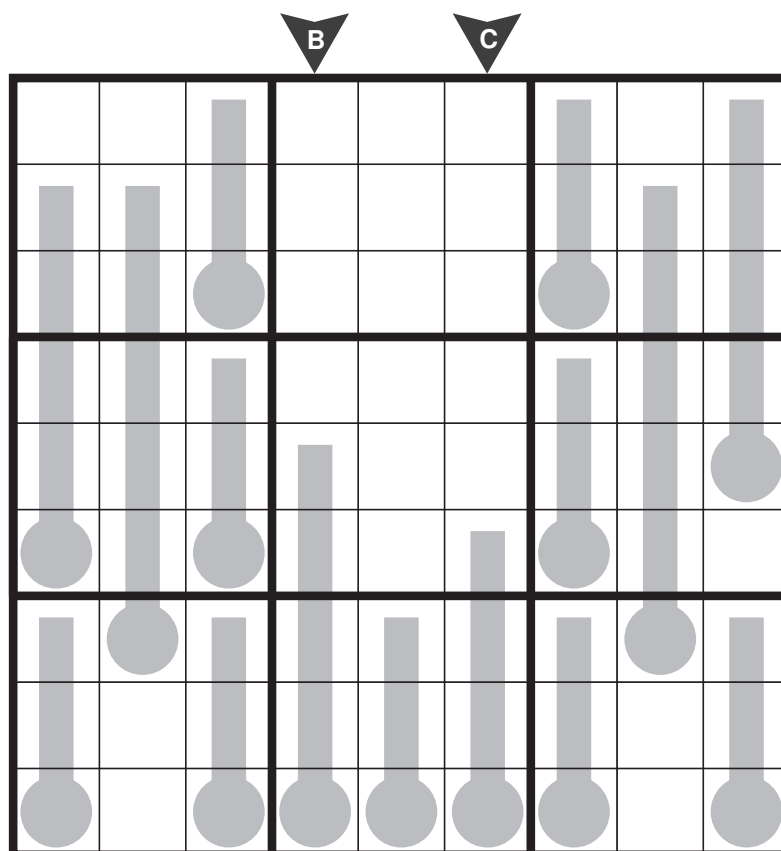
Additionally, the
digits in each
“thermometer”
shaped region must
be strictly
increasing from the
circular “bulb” to
the other end(s).

Thermo
Sudoku

9 points

Apply standard
Sudoku rules.

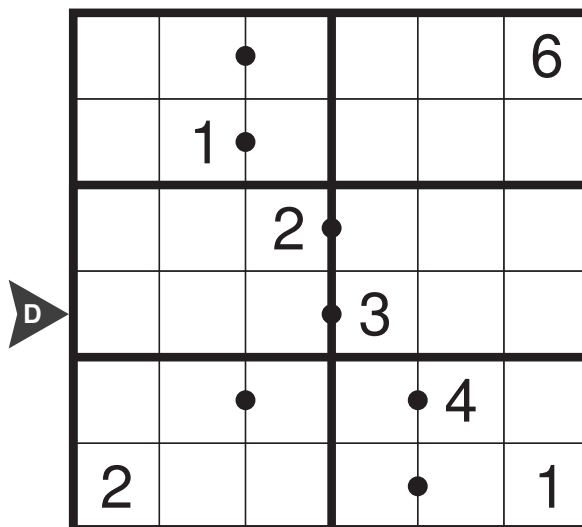
Additionally, the
digits in each
“thermometer”
shaped region must
be strictly
increasing from the
circular “bulb” to
the other end(s).



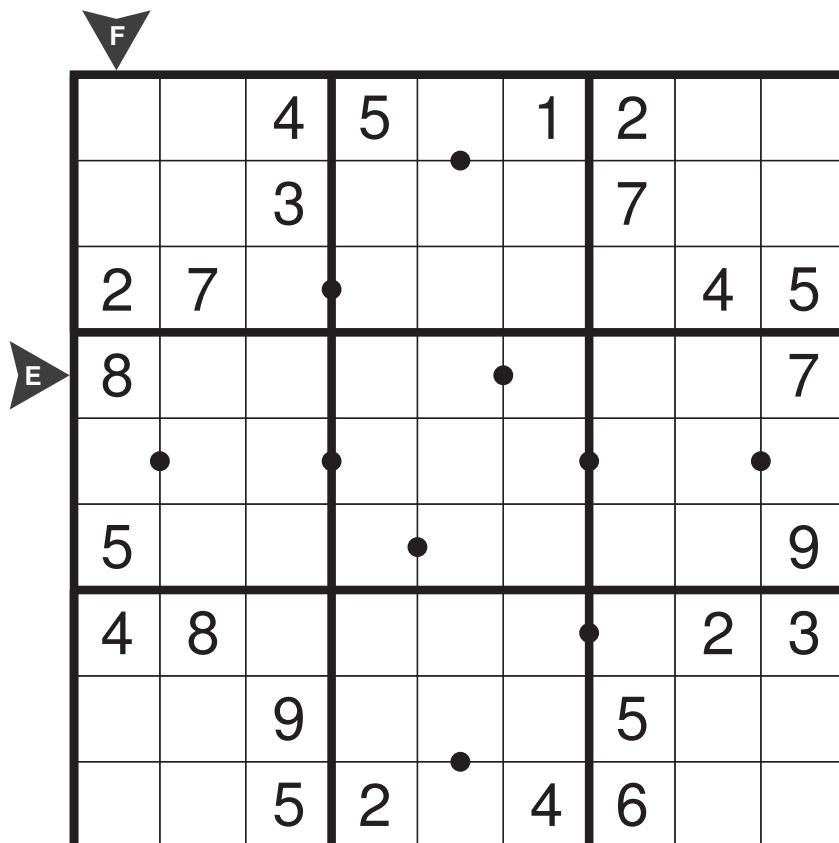
Category: Odd Even

Odd Sum Pair
Sudoku

2 points

Apply standard
Sudoku rules.A dot between two
cells implies the
sum of digits in
those 2 cells is odd.Odd Sum Pair
Sudoku

13 points

Apply standard
Sudoku rules.A dot between two
cells implies the
sum of digits in
those 2 cells is odd.

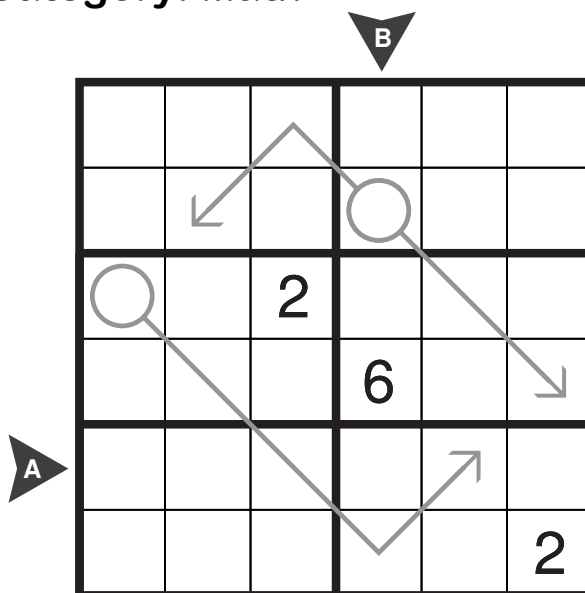
Category: Math

Arrow
Sudoku

7 points

Apply standard
Sudoku rules.

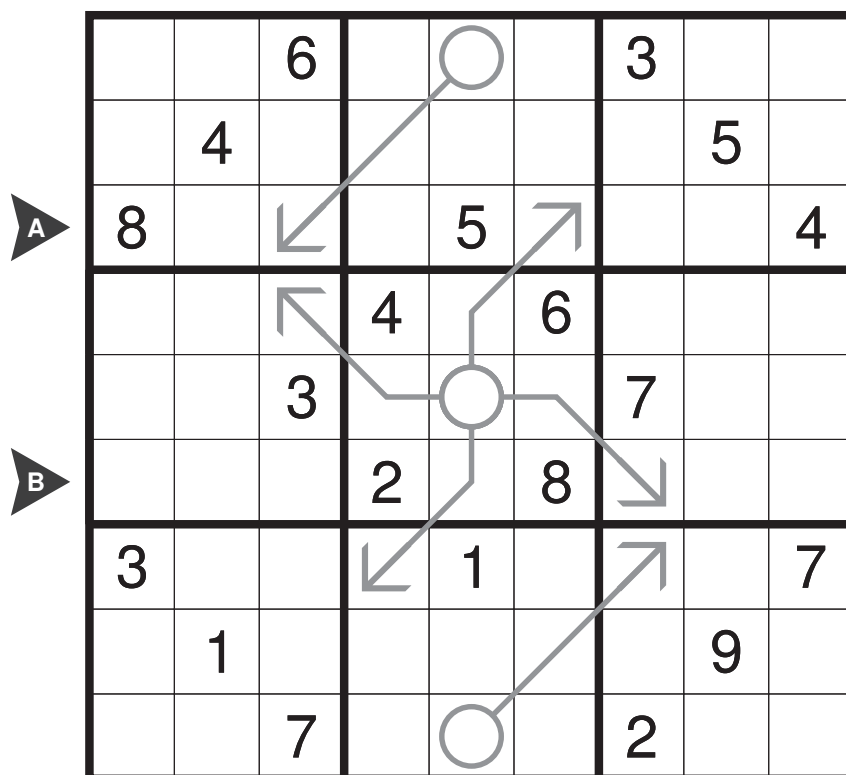
The sum of the
digits along the path
of each arrow must
equal the digit in the
circled cell. Digits
can repeat within an
arrow shape.

Arrow
Sudoku

11 points

Apply standard
Sudoku rules.

The sum of the
digits along the path
of each arrow must
equal the digit in the
circled cell. Digits
can repeat within an
arrow shape.



Category: Converse

No Knight Step
Sudoku

2 points

Apply standard Sudoku rules.

No cell that is a knight-step away can contain the same digit. In chess, a knight moves two squares forward followed by one sideways.

	X		X	
X				X
		•		
X				X
	X		X	

B

1	2			3	4
5	6			4	1

A

No Knight Step
Sudoku

11 points

Apply standard Sudoku rules.

No cell that is a knight-step away can contain the same digit. In chess, a knight moves two squares forward followed by one sideways.

	X		X	
X				X
		•		
X				X
	X		X	

B

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

A

Category: Outside Clues

Outside Sudoku

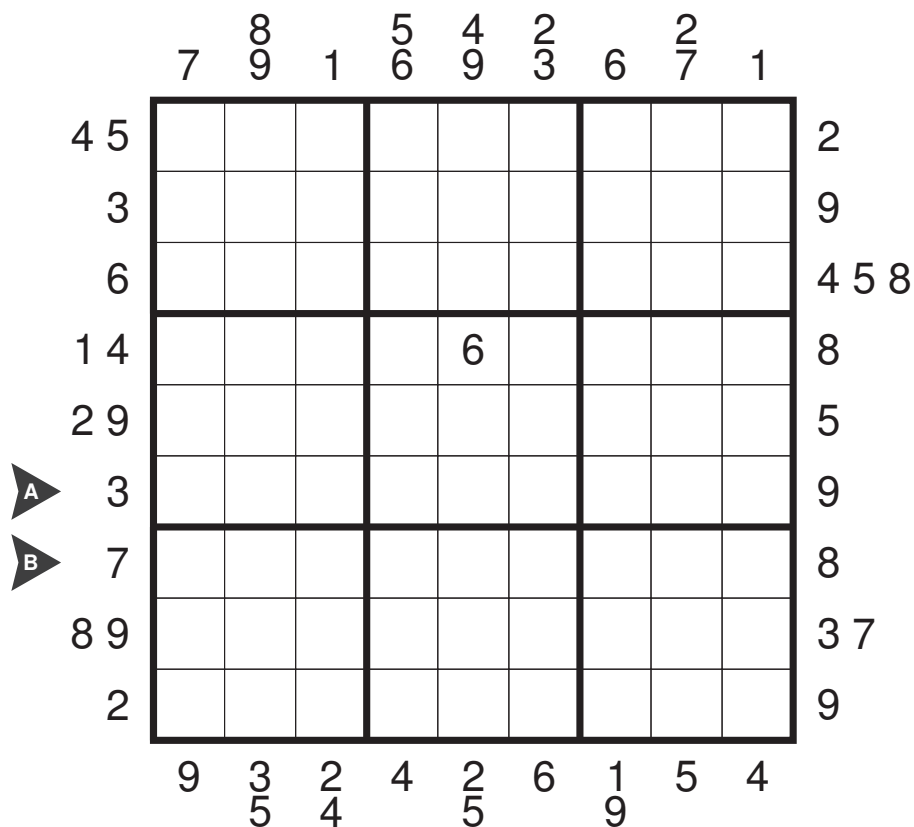
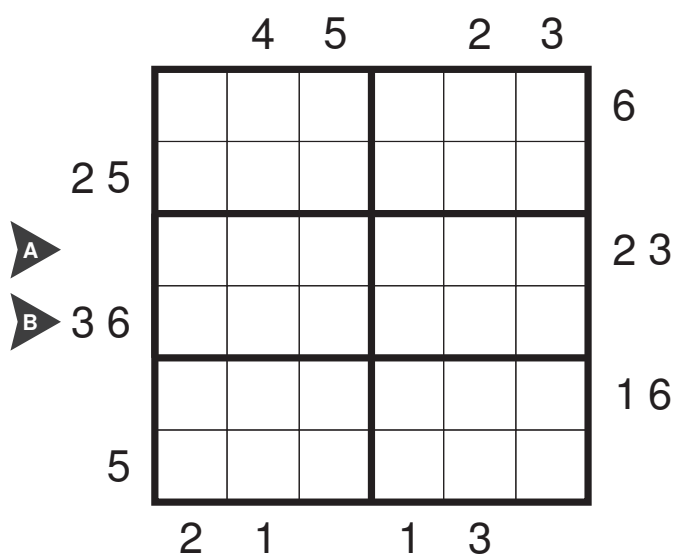
3 points

16 points

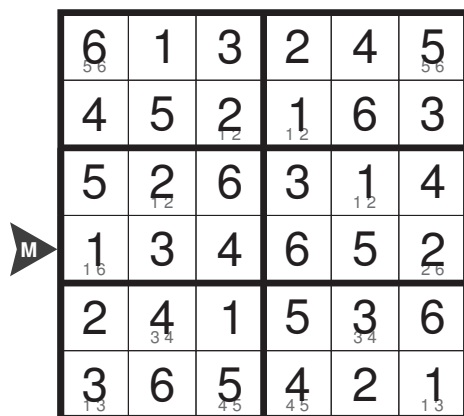
Apply standard Sudoku rules to each of the grids.

The digits outside the grid must appear in one of the cells in the first box (till the next bold line) seen from that edge of the grid.

Note: Sudokus taken from Sudoku Mahabharat 'Outside' Round by Rakesh Rai in Dec, 2014.

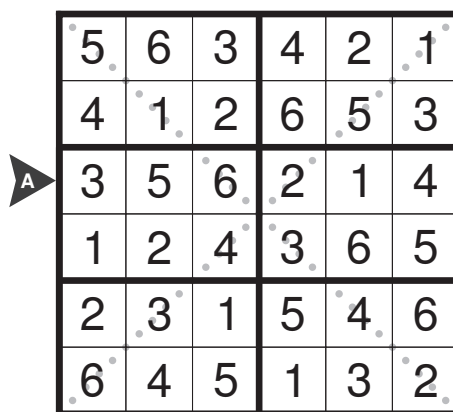


Pencil Marks



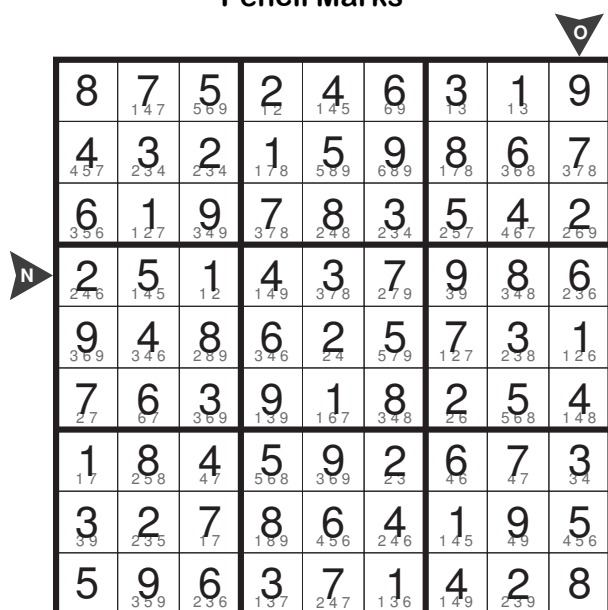
6 ₅₆	1	3	2	4	5 ₅₆
4	5	2 ₁₂	1 ₁₂	6	3
5	2 ₁₂	6	3	1 ₁₂	4
1 ₁₆	3	4	6	5	2 ₂₆
2	4 ₃₄	1	5	3 ₃₄	6
3 ₁₃	6	5 ₄₅	4 ₄₅	2	1 ₁₃

Diagonal



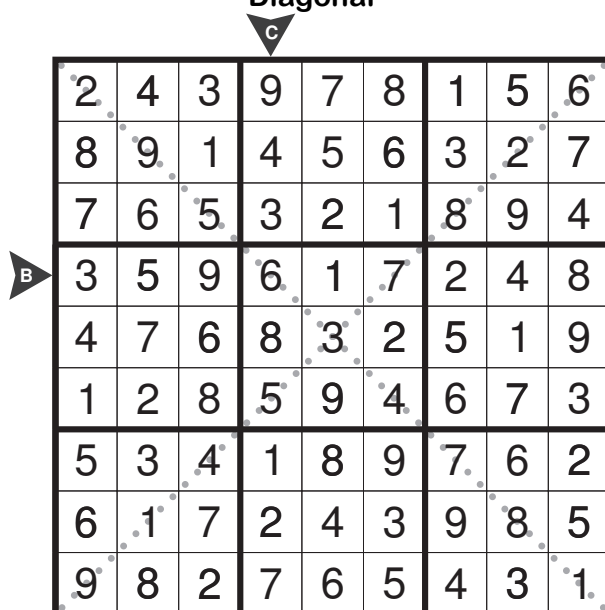
5 ₅₆	6	3	4	2	1 ₅₆
4	1 ₅₆	2	6	5 ₅₆	3
3	5	6 ₅₆	2	1	4
1	2	4 ₅₆	3	6	5
2	3 ₅₆	1	5	4 ₅₆	6
6 ₅₆	4	5	1	3	2 ₅₆

Pencil Marks



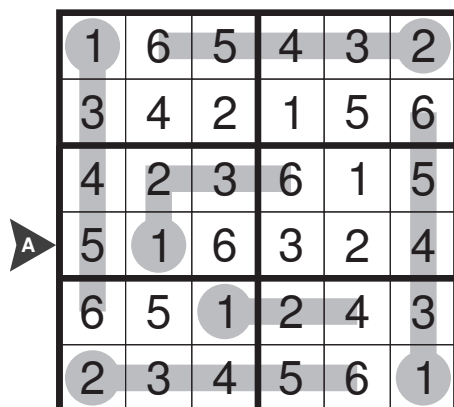
8 ₁₄₇	7 ₅₆₉	5 ₁₂	2 ₁₄₅	4 ₆₉	6 ₁₃	3 ₁₃	1	9
4 ₄₅₇	3 ₂₃₄	2 ₂₃₄	1 ₁₇₈	5 ₅₈₉	9 ₆₈₉	8 ₁₇₈	6 ₃₆₈	7 ₃₇₈
6 ₃₅₆	1 ₁₂₇	9 ₃₄₉	7 ₃₇₈	8 ₂₄₈	3 ₂₃₄	5 ₂₅₇	4 ₄₆₇	2 ₂₆₉
2 ₂₄₆	5 ₁₄₅	1 ₁₂	4 ₁₄₉	3 ₃₇₈	7 ₂₇₉	9 ₃₉	8 ₃₄₈	6 ₂₃₆
9 ₃₆₉	4 ₃₄₆	8 ₂₈₉	6 ₃₄₆	2 ₂₄	5 ₅₇₉	7 ₁₂₇	3 ₂₃₈	1 ₁₂₆
7 ₂₇	6 ₆₇	3 ₃₆₉	9 ₁₃₉	1 ₁₆₇	8 ₃₄₈	2 ₂₆	5 ₅₆₈	4 ₁₄₈
1 ₁₇	8 ₂₃₈	4 ₄₇	5 ₅₆₈	9 ₃₆₉	2 ₂₃	6 ₄₆	7 ₄₇	3 ₃₄
3 ₃₉	2 ₂₃₅	7 ₁₇	8 ₁₈₉	6 ₄₅₆	4 ₂₄₆	1 ₁₄₅	9 ₄₉	5 ₄₅₆
5 ₃₅₉	9 ₂₃₆	6 ₁₃₇	3 ₂₄₇	7 ₁₃₆	1 ₁₄₉	4 ₂₃₉	2	8

Diagonal



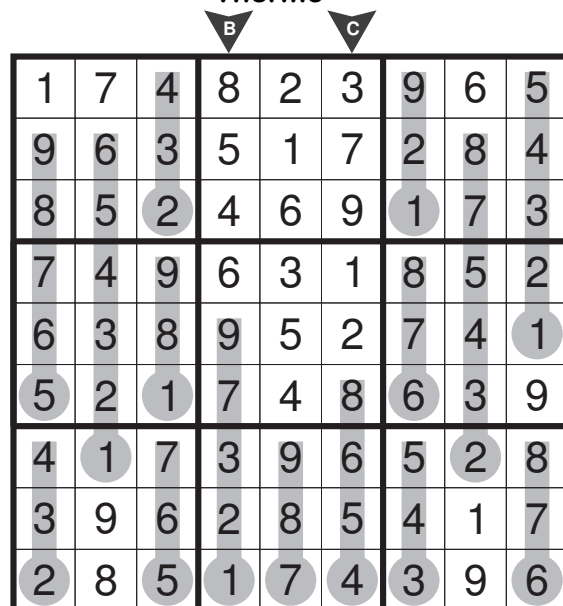
2 ₅₆	4	3	9	7	8	1	5	6 ₅₆
8 ₅₆	9 ₅₆	1	4	5	6	3	2 ₅₆	7
7	6	5 ₅₆	3	2	1	8 ₅₆	9	4
3	5	9	6 ₅₆	1	7	2	4	8
4	7	6	8	3 ₅₆	2	5	1	9
1	2	8	5 ₅₆	9	4	6	7	3
5	3	4 ₅₆	1	8	9	7	6	2
6	1 ₅₆	7	2	4	3	9	8 ₅₆	5
9 ₅₆	8	2	7	6	5	4	3	1 ₅₆

Thermo



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

Thermo



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

Odd Sum Pair

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

Arrow

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

Odd Sum Pair

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

Arrow

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

No Knight Step

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

No Knight Step

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

Outside Sudoku

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

Outside Sudoku

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