



## Round 4 – Part 1: Twisted Classics

**Duration: 60 Minutes**

**Date: 21<sup>st</sup> January**

This round will contain 2 9x9 Classics, and then some variants which do not have added rules, but they twist the regional boundaries or use the Classics in an uncommon way. The points distribution for the actual round will be released around 4 days 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.

<b>Sudoku</b>	<b>Points</b>
Classic 9x9 1, 2	17, 23
Overlapping Sudoku (6x6 & 9x9)	11, 22
Linked Sudoku (6x6 & 9x9)	14, 40
Irregular Sudoku (6x6 & 9x9)	7, 21
Surplus Sudoku (6x6 & 9x9)	10, 35
<b>Total</b>	<b>200</b>

The test can be started any time between 12:01 AM and 11:59 PM on 21<sup>st</sup> January.

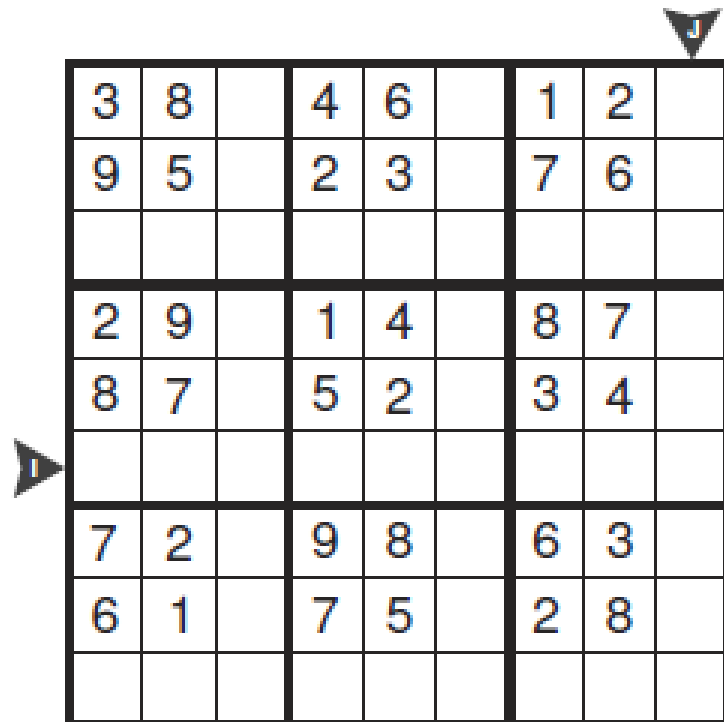
There will be instant grading, i.e., when you submit the answers, you will know if they are right or wrong. You can resubmit solutions for incorrect submissions. However, note that, for 1 incorrect submission 90% points will be awarded for the subsequent correction, and similarly 70% for 2 incorrect, 40% for 3 incorrect and 0% for 4 incorrect submissions respectively.

The Sudokus can be solved in any sequence, and you can attempt in paper or online mode. It is not necessary to enter answers in both modes. You can even enter some in paper mode and some in online mode. It is enough to enter the marked rows/columns correctly in both modes. For any other queries, please mail before taking the contest.

### Standard Sudoku

6 points

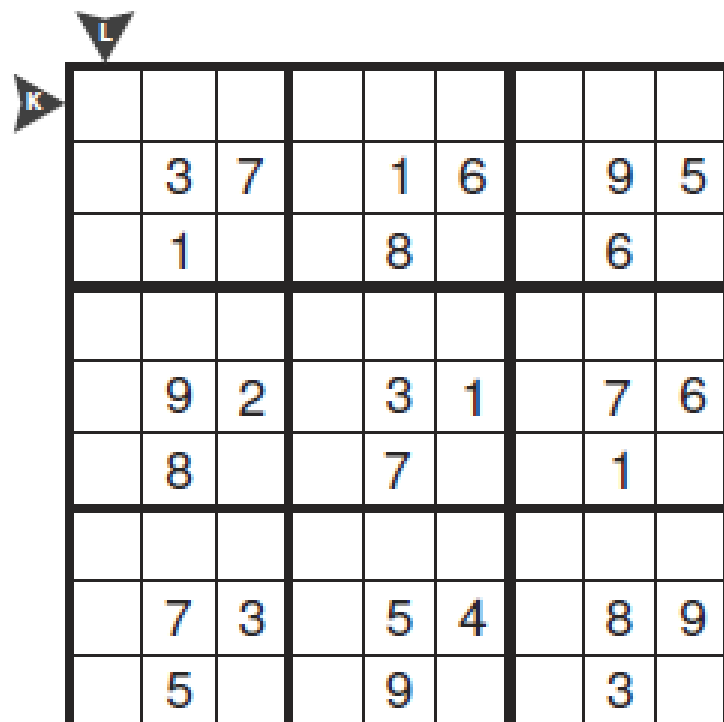
Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and 3X3 box.



### 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.

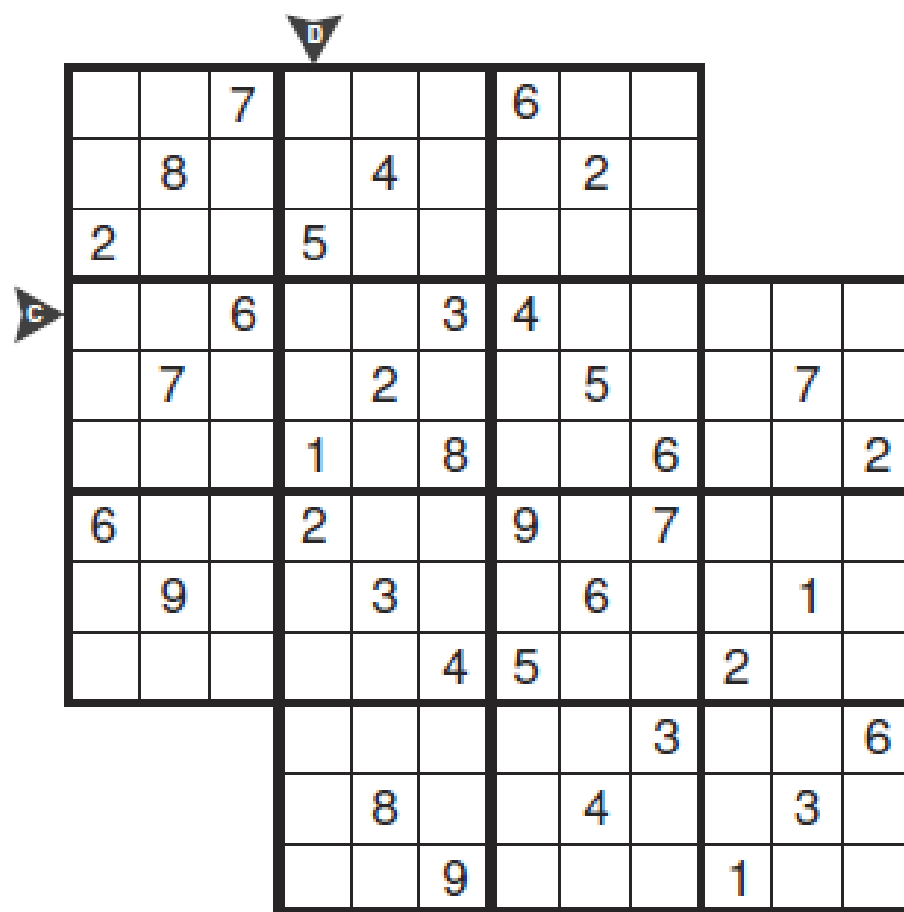
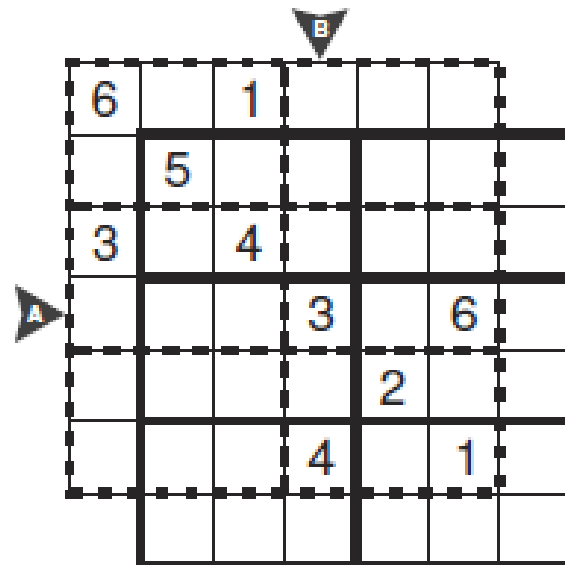


### Overlapping Sudoku

3 points  
16 points

Apply standard  
Sudoku rules to  
each of the grids.

Two grids are  
overlapping.



## Linked Sudoku

5 points

Apply standard  
Sudoku rules to  
each of the grids.

Two grids are linked  
to each other. The  
shaded cells must  
contain same digit  
in both the grids.

**E**

4					
2	1		5		
			1		
			3		5

**F**

					1
				3	
6			4		
	4				
		4			
			3		

## Linked Sudoku

16 points

Apply standard Sudoku rules to each of the grids.

Two grids are linked to each other. The shaded cells must contain same digit in both the grids.



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

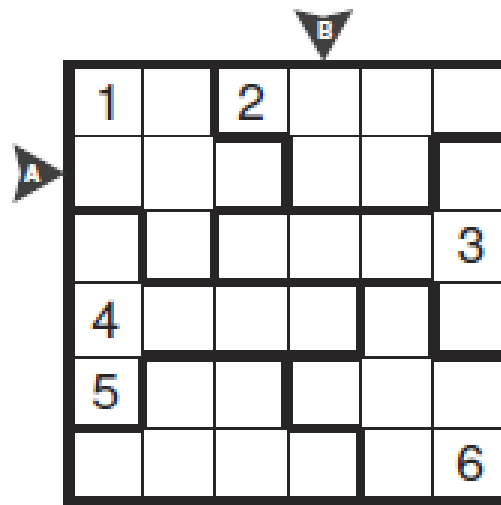


1			5			8		
	2				3		7	
		3				1		6
6			4				3	
				5				
	1				6			8
8		9				7		
	3		9				8	
		2			7			9

### Irregular Sudoku

2 points

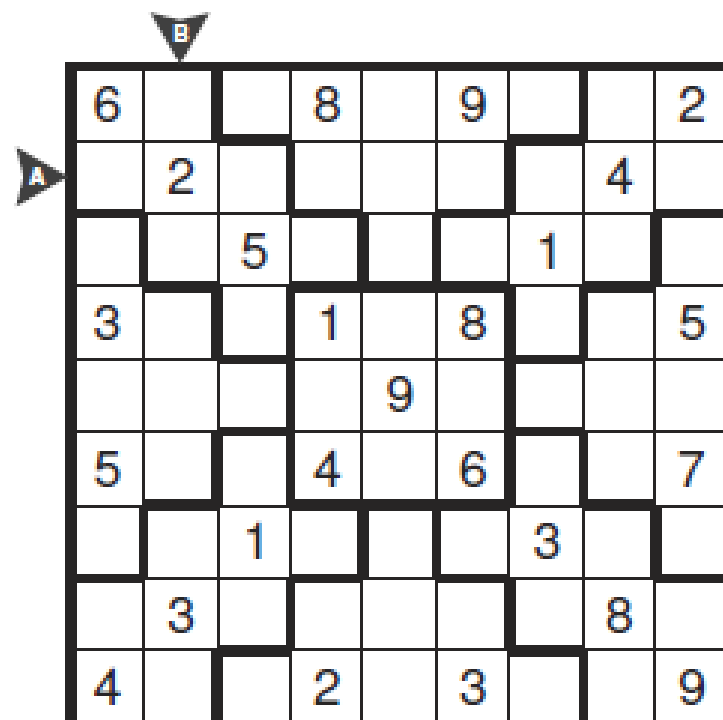
Place a digit from 1 to 6 in each empty cell so that each digit appears exactly once in each row, column and outlined region. Each outlined region is marked by thick borders.



### Irregular Sudoku

11 points

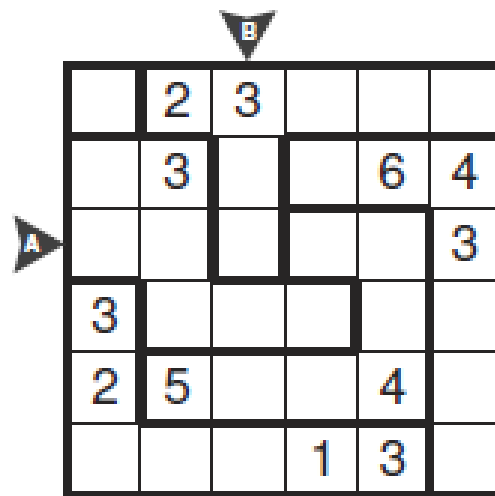
Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and outlined region. Each outlined region is marked by thick borders.



### Surplus Sudoku

3 points

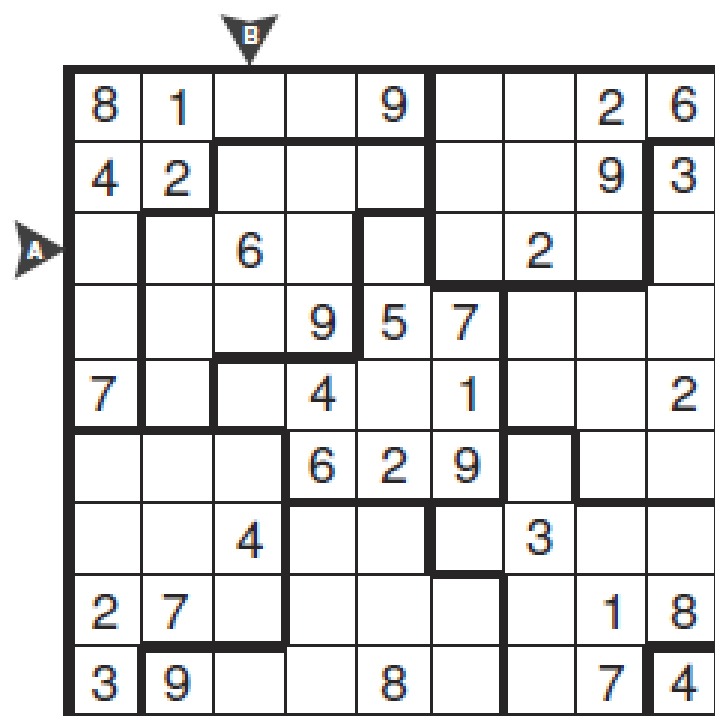
Place a digit from 1 to 6 in each empty cell so that each digit appears exactly once in each row and column. Digits 1 to 6 must appear at least once in each of the outlined regions with seven cells.

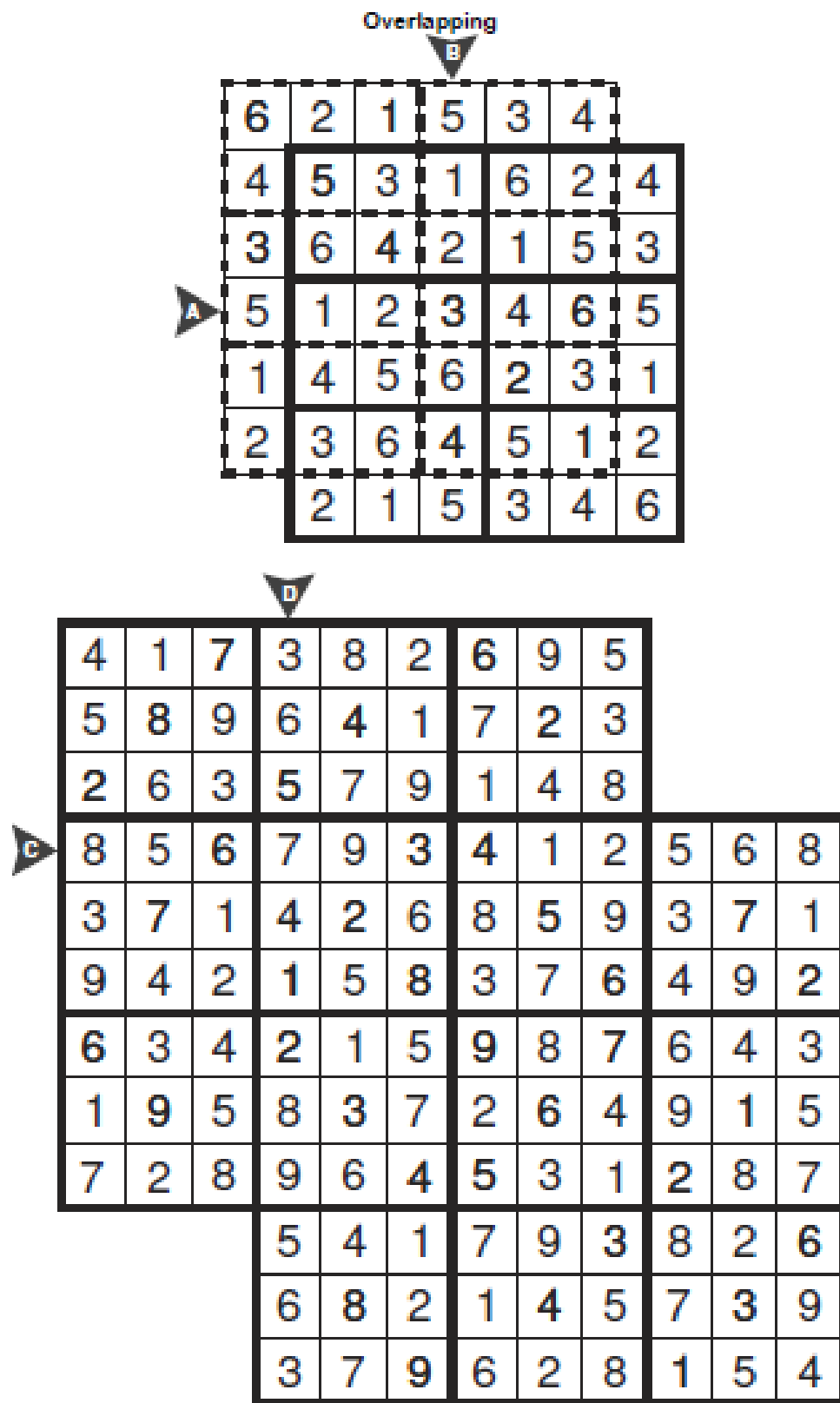


### Surplus Sudoku

13 points

Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row and column. Digits 1 to 9 must appear at least once in each of the outlined regions with ten cells.







## Linked Sudoku

Diagram illustrating the transformation of a 6x6 grid from state E to state F. In state E, the first column is highlighted in grey. In state F, the first row is highlighted in grey.

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

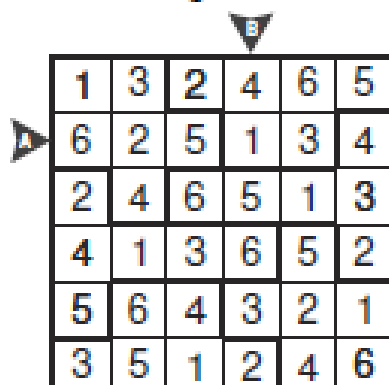
4	3	2	5	6	1
5	6	1	2	3	4
6	1	3	4	5	2
2	4	5	6	1	3
3	5	4	1	2	6
1	2	6	3	4	5

The figure shows two 9x9 grids representing the faces of a 3D cube. The left grid is labeled 'Front' and the right grid is labeled 'Back'. Each grid contains numbers 1-9. The 'Front' grid has a black triangle pointing to the left at the bottom center. The 'Back' grid has a black triangle pointing to the right at the top center.

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

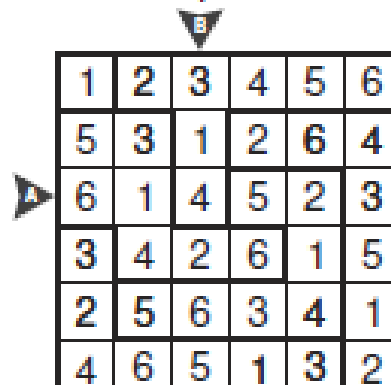
1	7	6	5	4	9	8	2	3
5	2	8	6	1	3	9	7	4
9	4	3	7	2	8	1	5	6
6	8	7	4	9	1	5	3	2
3	9	4	8	5	2	6	1	7
2	1	5	3	7	6	4	9	8
8	6	9	2	3	5	7	4	1
7	3	1	9	6	4	2	8	5
4	5	2	1	8	7	3	6	9

Irregular



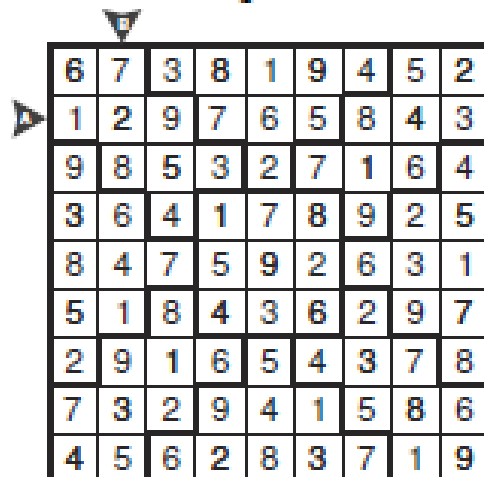
1	3	2	4	6	5
6	2	5	1	3	4
2	4	6	5	1	3
4	1	3	6	5	2
5	6	4	3	2	1
3	5	1	2	4	6

Surplus



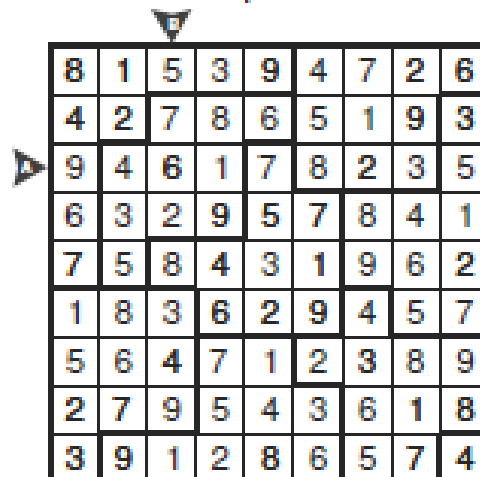
1	2	3	4	5	6
5	3	1	2	6	4
6	1	4	5	2	3
3	4	2	6	1	5
2	5	6	3	4	1
4	6	5	1	3	2

Irregular



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

Surplus



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