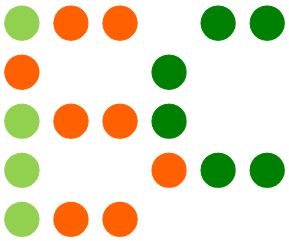
sudoku mahabharat



Episode – 2
7th – 11th February 2020

Substitution and Neighbours Variations
By
Pranav Kamesh and Hemant Kumar Malani

Sudoku Mahabharat rounds will also serve as qualifiers for Indian Sudoku Championship for year 2020. Please check http://logicmastersindia.com/SM/2020sm.asp **for details.**

Important Links

Submission Page : http://logicmastersindia.com/SM/202002

Discussion Thread : http://logicmastersindia.com/t/?tid=2726

F. A. Q. : http://logicmastersindia.com/t/?tid=381

Registration, if required : http://logicmastersindia.com/register.asp

About this Episode

This episode has the following Sudokus

- Mini Classic Sudoku (4)
- Classic Sudoku (4)
- True or Lie Sudoku (2)
- Substitution Sudoku (2)
- Fortress Sudoku (2)
- Renban Sudoku (2)
- Odd Even Count Sudoku (2)

How to participate?

- Understand the rules of different Sudokus that will appear in this episode. This Instruction Booklet has rules and examples for each Sudoku.
- Download the password protected Sudoku booklet (will be uploaded before the test starts). The Sudoku booklet contains the actual Sudokus to be solved. It is password protected, so you won't be able to open it.
- Any time on or after 7th February (but on or before 11th February), login at the submission page using your LMI userid and password.
- Please check the submission page for exact timing.
- Click on "Start". At this time, password for pdf will be shown and timer will start.
- You can either solve online using flash interface or print the pdf and solve on paper.
- Each Sudoku will be marked with two arrows
- If solving on paper
    - Fill the answer form with digits along the marked arrow(s)
    - Click submit button
- If solving online
    - After solving the Sudoku, click on "Submit" button below the grid
    - Each Sudoku grid has different submit buttons

If you are participating at LMI for first time, you must check the F.A.Q. at: http://logicmastersindia.com/t/?tid=381.

Points Table and Scoring

Points typically indicate difficulty of the Sudokus and time required to solve them. While the organizers have made best efforts to match them, your personal experience and preference may differ.

Mini Classic 1-6	1, 1, 1, 1
Classic 1-9	5, 5, 5, 5
True or Lie 1-6, 1-9	3, 9
Substitution 1-6,1-9	5, 12
Fortress 1-6,1-9	3, 8
Renban 1-6,1-9	5, 14
Odd Even Count 1-6,1-9	4, 13

This test uses instant grading where a solver can submit any individual Sudoku and receive confirmation that the solution is correct or not. Each incorrect submission reduces the sudoku's potential score. The first, second, third, and fourth incorrect submissions reduce the potential score to 90%, 70%, 40%, and 0% respectively.

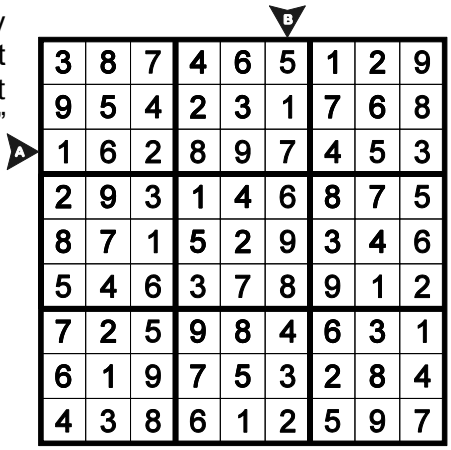
Bonus

If you submitted all Sudokus correctly, you can have bonus points 1 point per minute saved, computed up to seconds.

General Rules

To make the rules less repetitive, you will see following line “Apply standard Sudoku rules” in most Sudoku rules. This means “Place a digit from 1 to N, where N is the size of the grid, in each empty cell so that each digit appears exactly once in each row, column and outlined region.” These outlined regions could be 3X3 boxes, or other shapes.

Each Sudoku will be marked with, at max, 2 lettered arrows. If you are solving on paper, you need to submit the digits in these arrows, in order, including the givens. For example, the answer key for the Sudoku at the right is 162897453, 517698432.



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

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About the Sudoku Booklet

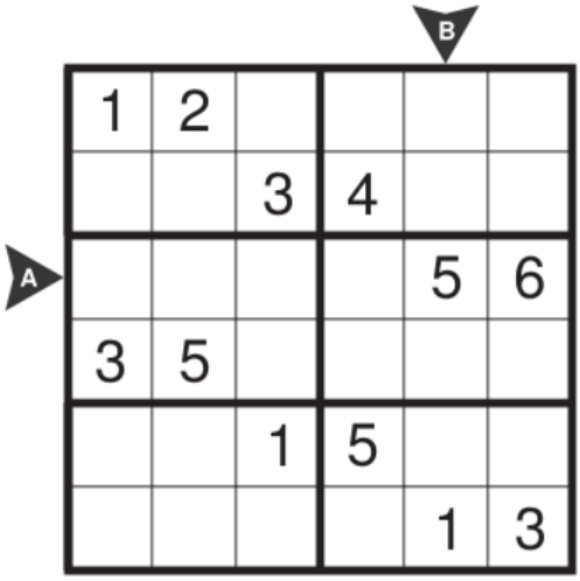
The password protected Sudoku booklet will have 8 pages. If you are planning to solve on paper, we advise you to have a printer accessible with enough paper.

The Sudoku booklet will look similar to the next pages in this instruction booklet. The font sizes, cell sizes, colors, borders, shading, margin will be similar. We recommend you to print few pages of this instruction booklet. You can avoid any last minute surprise during the test.

1-4 Mini Classic Sudoku

1+1+1+1 points

Place a digit from 1 to 6 in each empty cell so that each digit appears exactly once in each row, column and 2X3 box.

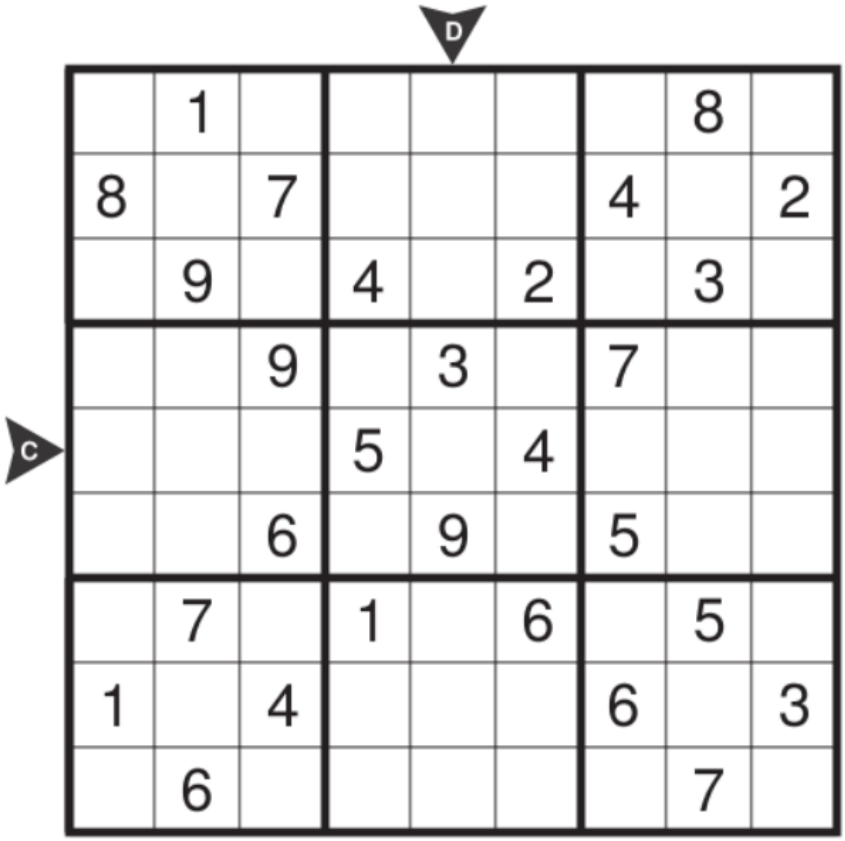


5-8 Classic Sudoku

5+5+5+5 points

Classic Sudoku

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.

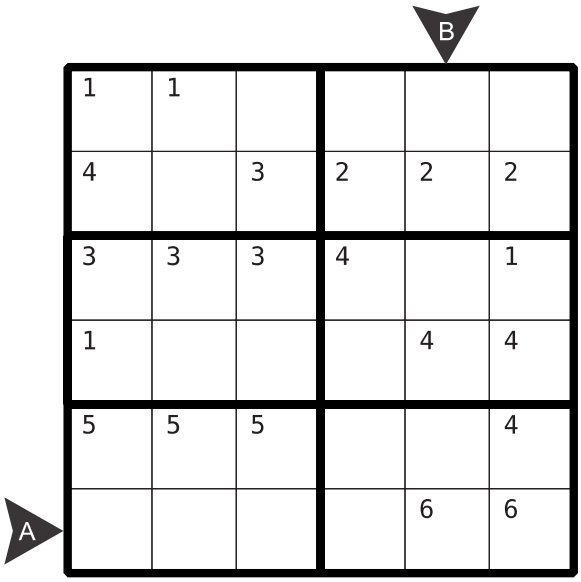


True or Lie Sudoku - 1

3 points

Apply mini classic Sudoku rules.

Additionally given clues may be correct or wrong. If the clue is wrong, then the correct digit is either 1 higher or 1 lower.

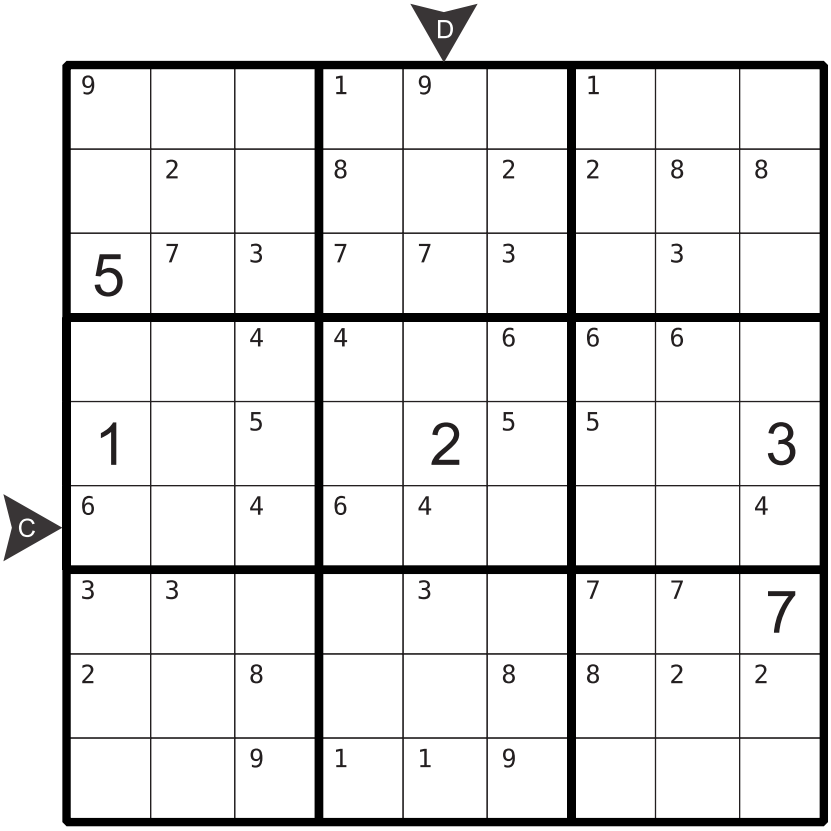


True or Lie Sudoku - 2

9 points

Apply classic Sudoku rules.

Additionally given clues may be correct or wrong. If the clue is wrong, then the correct digit is either 1 higher or 1 lower.



Substitution Sudoku - 1

5 points

Apply mini classic Sudoku rules.

A cell with an alphabet contains a digit whose mapped word contains the corresponding alphabet.

1 : ONE
2 : TWO
3 : THREE
4 : FOUR
5 : FIVE
6 : SIX

F

	S	U	O		
R		O		O	
	O		F		H
N		V		I	
	W		E		E
		T	I	R	

E

Substitution Sudoku - 2

12 points

Apply classic Sudoku rules.

A cell with an alphabet contains a digit whose mapped word contains the corresponding alphabet.

1 : ONE
2 : TWO
3 : THREE
4 : FOUR
5 : FIVE
6 : SIX
7 : SEVEN
8 : EIGHT
9 : NINE

H

H				F		R		
R	F		I	O		O	S	
				S				
S								V
N		T	H	R	E	E		V
N								N
			S				N	
	F			F		O	S	
V	T			V				

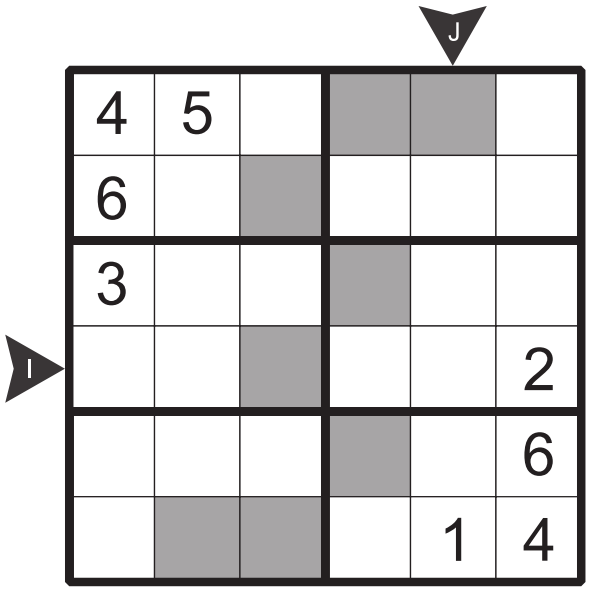
G

Fortress Sudoku - 1

3 points

Apply mini classic sudoku rules.

There is a fortress on the playground formed by shaded cells. The shaded cells have to be greater than the horizontally or vertically adjacent white cells.

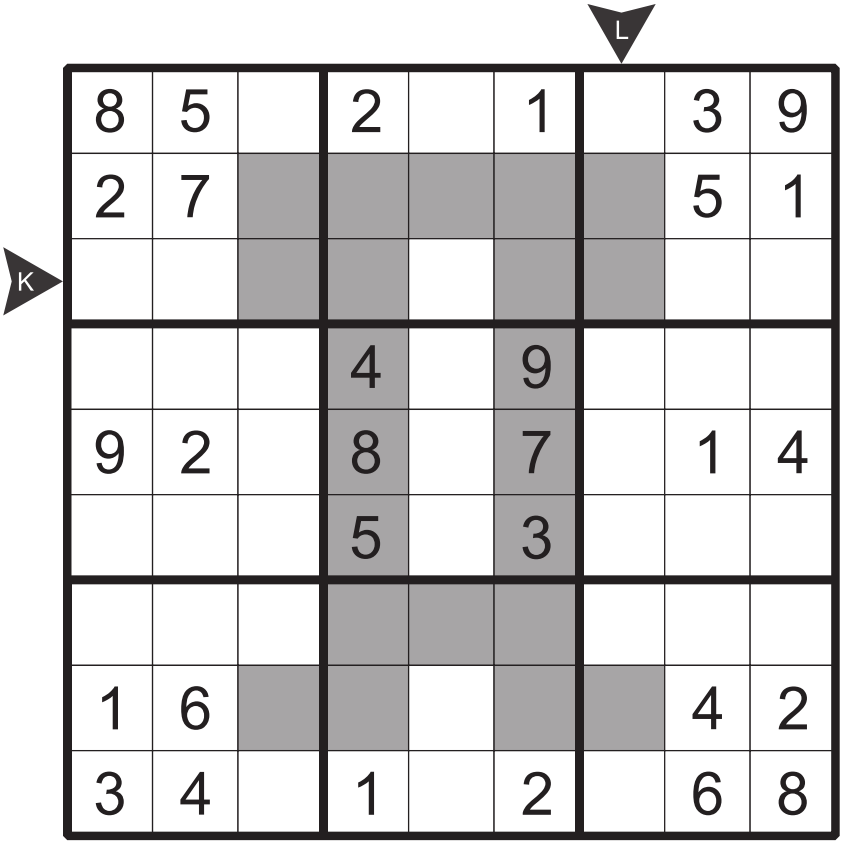


Fortress Sudoku - 2

8 points

Apply classic sudoku rules.

There is a fortress on the playground formed by shaded cells. The shaded cells have to be greater than the horizontally or vertically adjacent white cells.

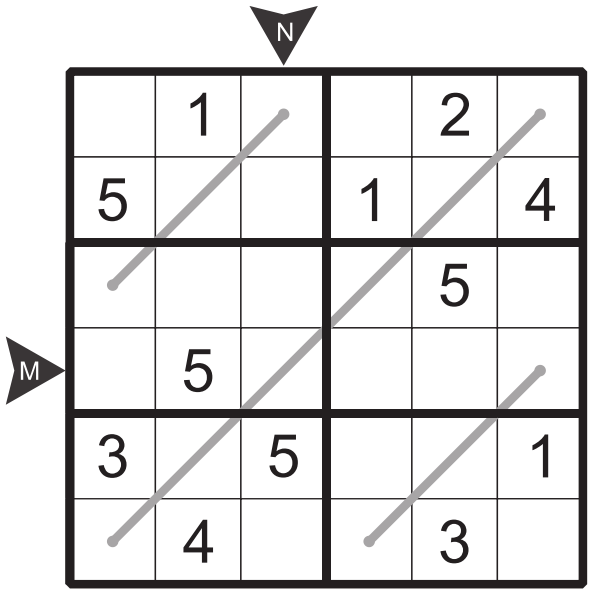


Renban Sudoku - 1

5 points

Apply mini classic Sudoku rules.

The set of digits on each line must be distinct consecutive digits.

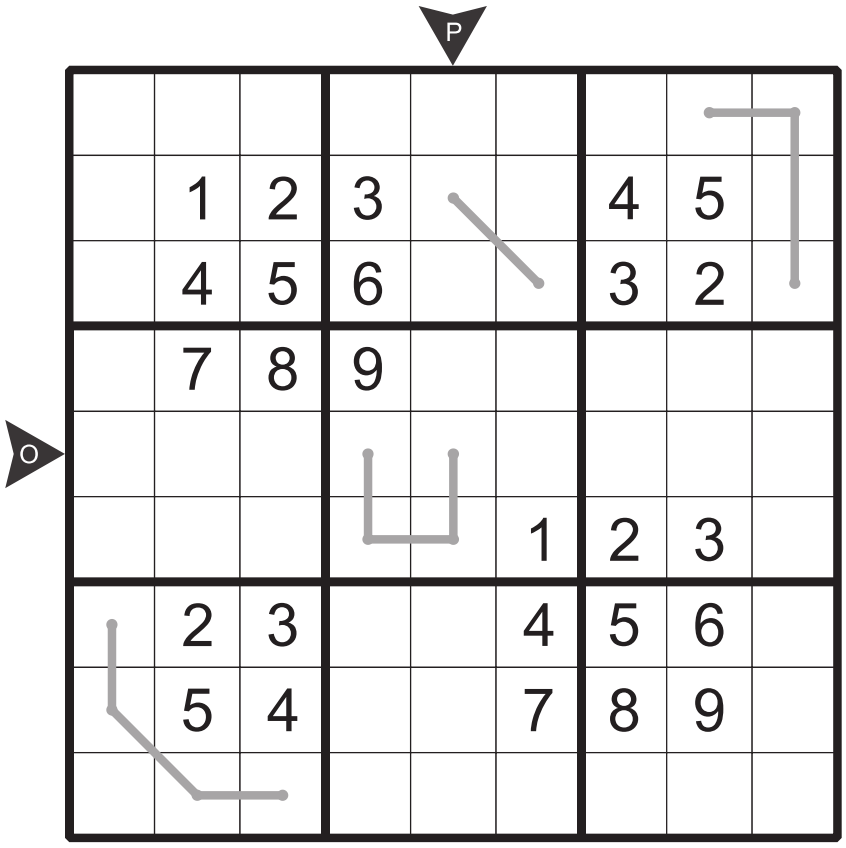


Renban Sudoku - 2

14 points

Apply classic Sudoku rules.

The set of digits on each line must be distinct consecutive digits.



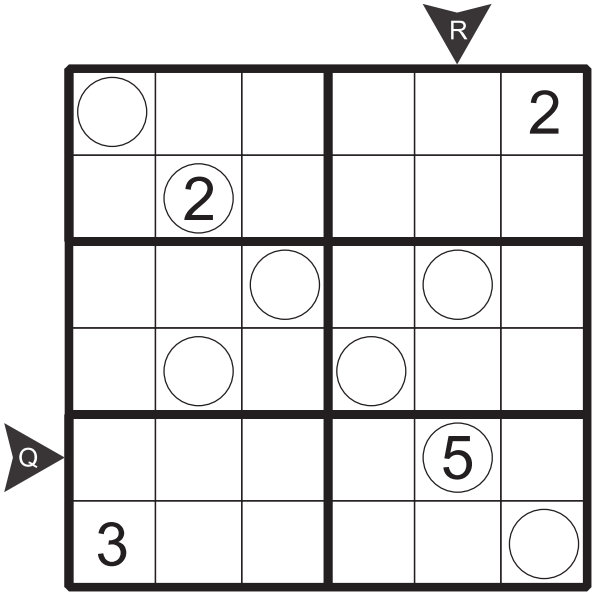
Odd Even Count Sudoku - 1

4 points

Apply mini classic Sudoku rules.

An even digit inside a circle represents the number of cells with even digits in the surrounding 8 cells.

An odd digit inside a circle represents the number of cells with odd digits in surrounding 8 cells.



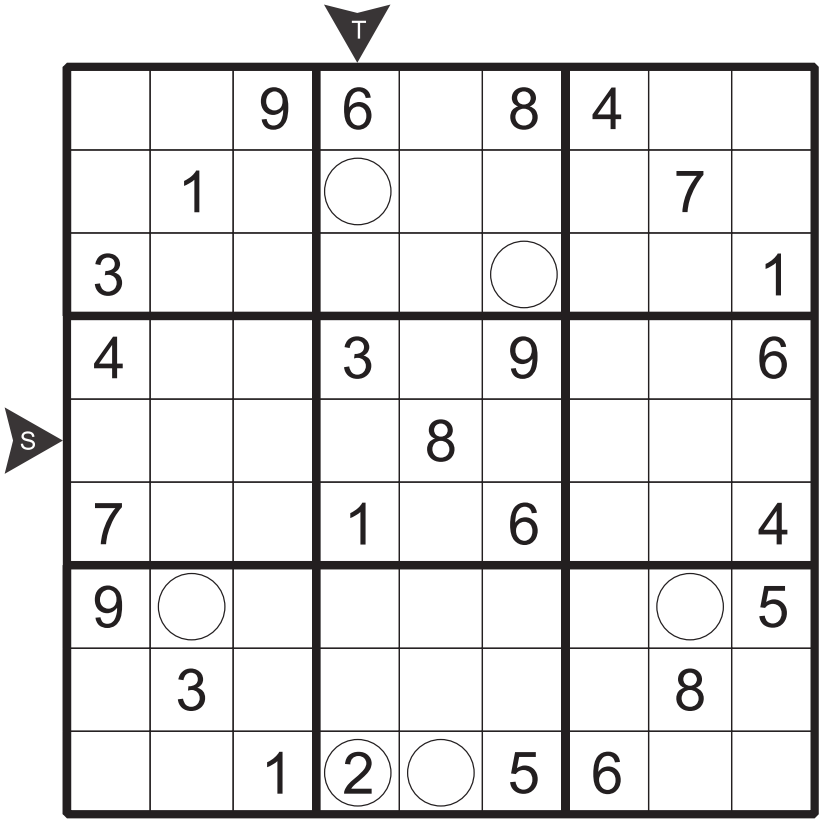
Odd Even Count Sudoku - 2

13 points

Apply classic Sudoku rules.

An even digit inside a circle represents the number of cells with even digits in the surrounding 8 cells.

An odd digit inside a circle represents the number of cells with odd digits in surrounding 8 cells.



Mini Classic

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

Classic

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

True or Lie - 1

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

Substitution – 1

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

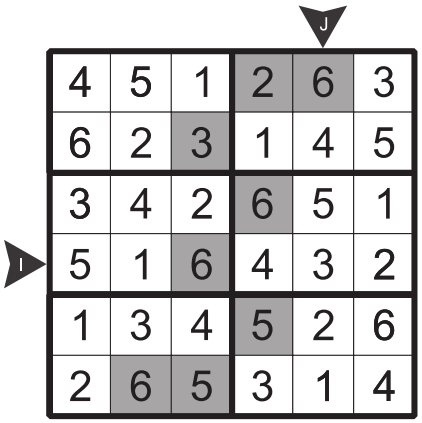
True or Lie – 2

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

Substitution – 2

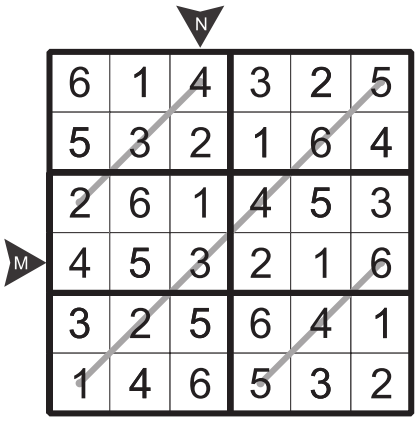
8	1	6	7	4	2	3	5	9
4	5	7	9	1	3	2	6	8
2	9	3	5	6	8	7	1	4
7	3	4	1	9	6	8	2	5
1	6	2	8	3	5	9	4	7
9	8	5	4	2	7	6	3	1
3	7	1	6	8	4	5	9	2
6	4	8	2	5	9	1	7	3
5	2	9	3	7	1	4	8	6

Fortress - 1



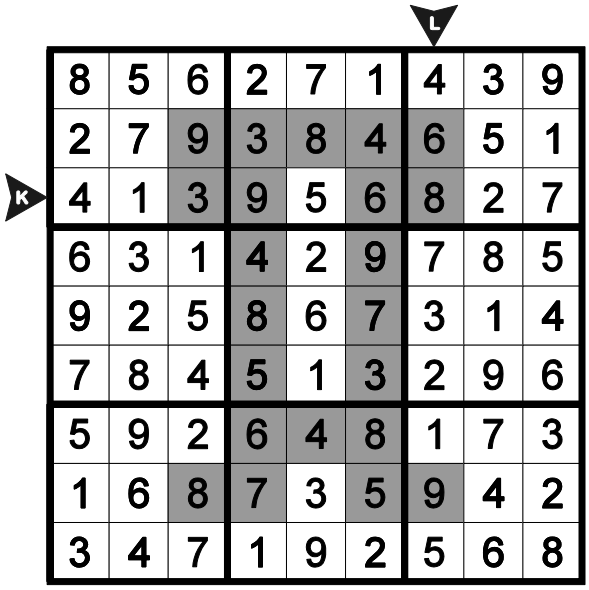
4	5	1	2	6	3
6	2	3	1	4	5
3	4	2	6	5	1
5	1	6	4	3	2
1	3	4	5	2	6
2	6	5	3	1	4

Renban - 1



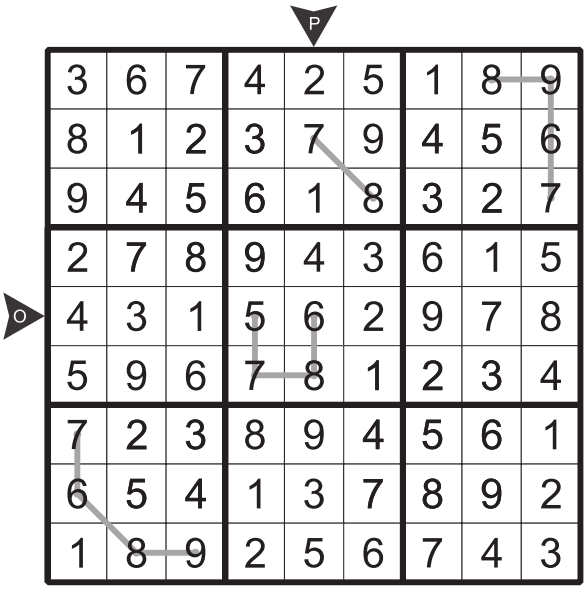
6	1	4	3	2	5
5	3	2	1	6	4
2	6	1	4	5	3
4	5	3	2	1	6
3	2	5	6	4	1
1	4	6	5	3	2

Fortress – 2



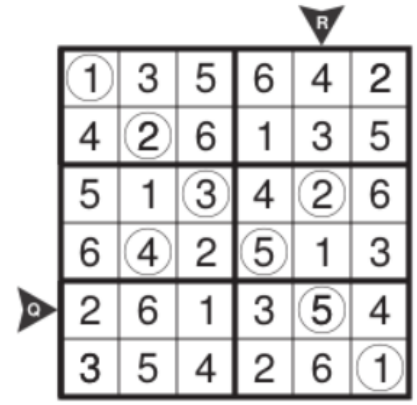
8	5	6	2	7	1	4	3	9
2	7	9	3	8	4	6	5	1
4	1	3	9	5	6	8	2	7
6	3	1	4	2	9	7	8	5
9	2	5	8	6	7	3	1	4
7	8	4	5	1	3	2	9	6
5	9	2	6	4	8	1	7	3
1	6	8	7	3	5	9	4	2
3	4	7	1	9	2	5	6	8

Renban - 2



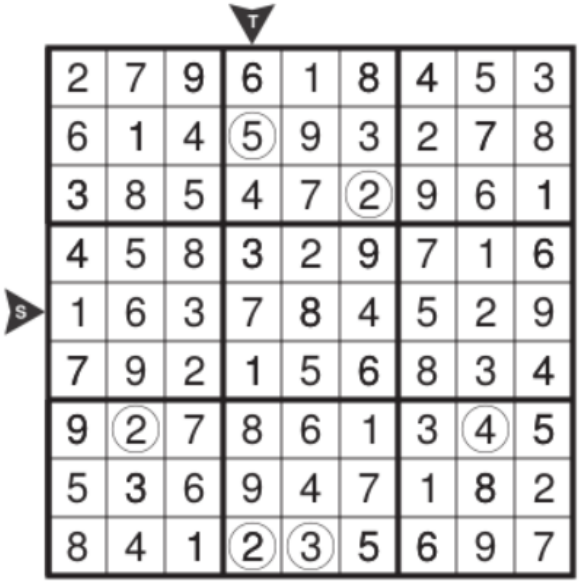
3	6	7	4	2	5	1	8	9
8	1	2	3	7	9	4	5	6
9	4	5	6	1	8	3	2	7
2	7	8	9	4	3	6	1	5
4	3	1	5	6	2	9	7	8
5	9	6	7	8	1	2	3	4
7	2	3	8	9	4	5	6	1
6	5	4	1	3	7	8	9	2
1	8	9	2	5	6	7	4	3

Odd Even Count – 1



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

Odd Even Count – 2



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