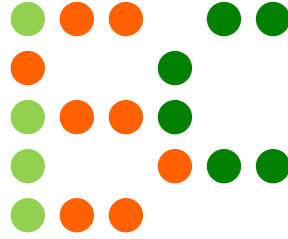


इयवठेय mahabharat



Episode – 1
06th – 09th January
Standard Variations & Neighbours Variations
By Akash Doulani

Sudoku Mahabharat rounds will also serve as qualifiers for Indian Sudoku Championship for year 2017. Please check <http://logicmastersindia.com/SM/2016-17.asp> for details.

Important Links

Submission Page : <http://logicmastersindia.com/SM/201701/>

Discussion Thread : <http://logicmastersindia.com/t/?tid=1356>

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

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

About this Episode

Apart from classic Sudokus of different sizes, this episode has six variants, namely Extra Region Sudoku, Untouch Sudoku, Palindrome Sudoku, Consecutive Pairs Sudoku, Renban Sudoku and Thermo Sudoku.

How to participate?

- Understand the rules of different Sudokus that will appear in this episode. This Instruction Booklet has rules 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 after 6th January (but before 9th January), 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.

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 submission reduces the potential score to 90%, 70%, 40%, and 0% respectively.

Standard 1-6	1, 1
Standard 1-9	4, 6, 5, 5
Extra Region 1-6, 1-9	2, 8
Untouch 1-6, 1-9	3, 7
Palindrome 1-6, 1-9	3, 14
Consecutive Pairs 1-6, 1-9	3, 6
Renban 1-6, 1-9	4, 10
Thermo 1-6, 1-9	4, 14

Bonus

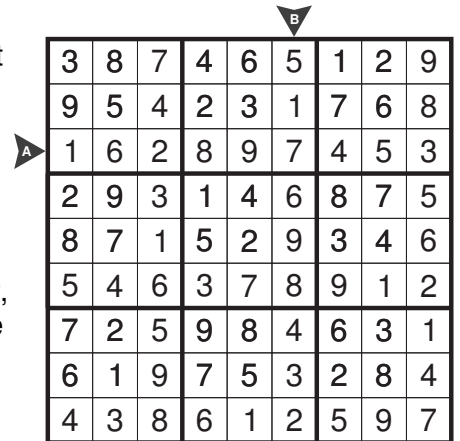
If you submitted all Sudokus correctly, you can have bonus points 1 point per minute saved, computed upto seconds.

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

About the Sudoku Booklet

The password protected Sudoku booklet will have 9 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 exactly like next 9 pages in this instruction booklet. The font sizes, cell sizes, colors, borders, shading, margin will be identical. We recommend you to print few pages of this instruction booklet. You can avoid any last minute surprise during the test.

Standard Sudoku

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.

1 point

A

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

1 point

B

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

Standard Sudoku

5 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.

	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	

Standard Sudoku

5 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.

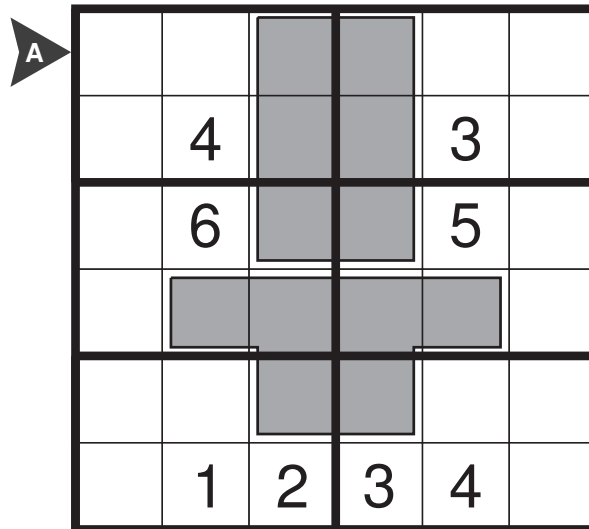
2				6				3
			4		1			
5	1						4	6
		9		5		6		
	7		6		8		1	
		5		3		4		
9	5						6	4
			2		5			
7				9				5

Extra Region Sudoku

2 points

Apply standard Sudoku rules.

Additionally, each extra region must contain digits from 1-6. The extra regions are of 6 cells each and are shaded / caged in the grid.

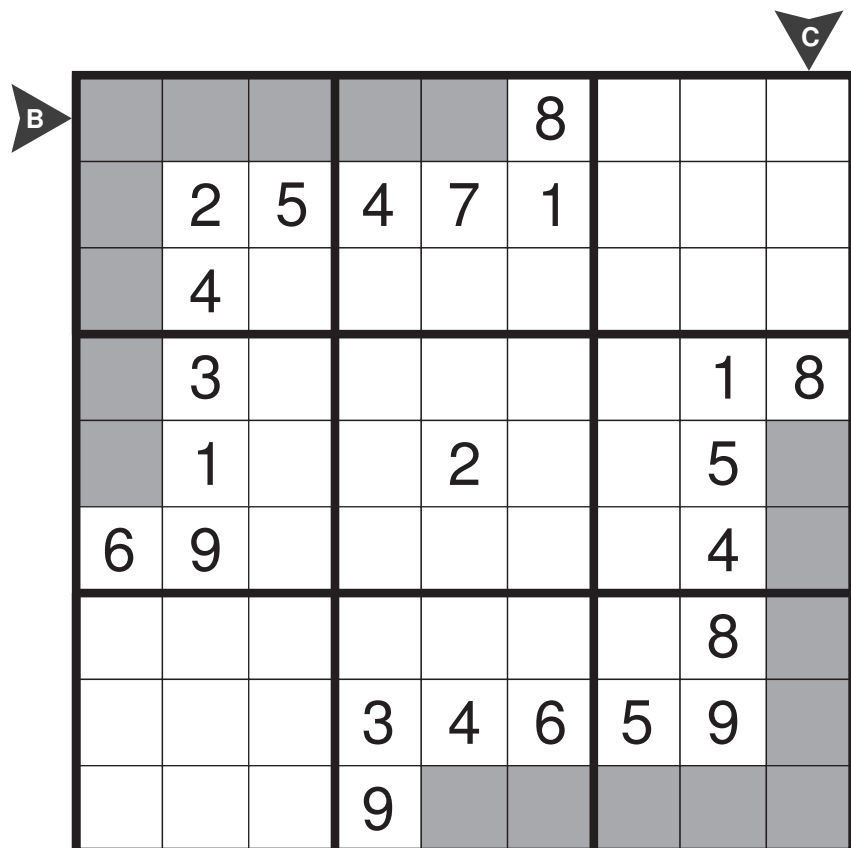


Extra Region Sudoku

8 points

Apply standard Sudoku rules.

Additionally, each extra region must contain digits from 1-9. The extra regions are of 9 cells each and are shaded / caged in the grid.

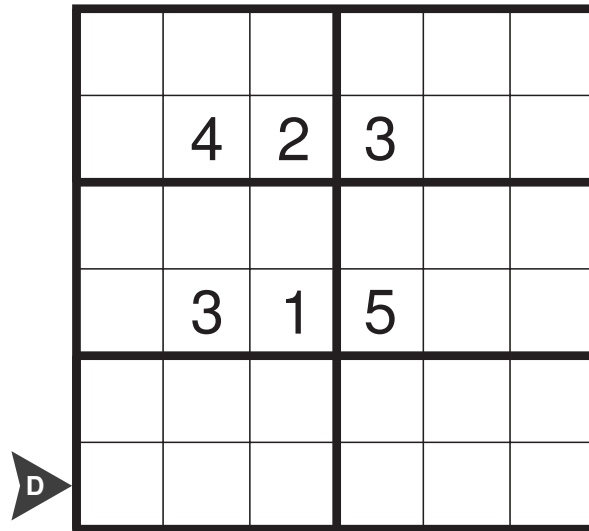


UnTouch Sudoku

3 points

Apply standard Sudoku rules.

Additionally, identical digits do not touch each other diagonally.

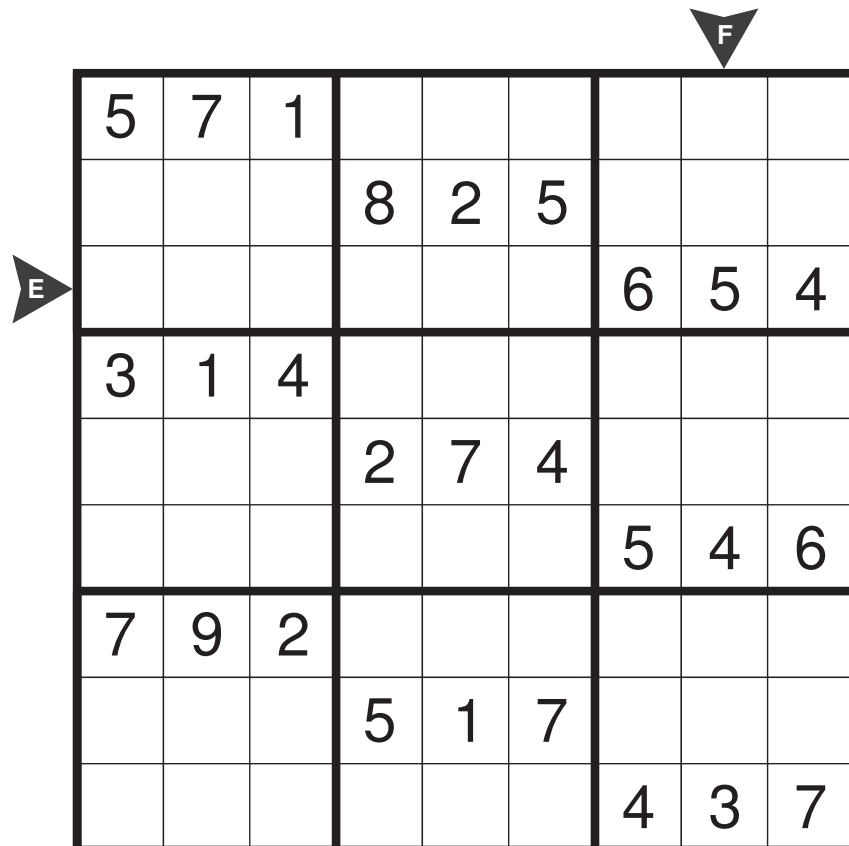


UnTouch Sudoku

7 points

Apply standard Sudoku rules.

Additionally, identical digits do not touch each other diagonally.



Palindrome Sudoku

3 points

Apply standard Sudoku rules.

Additionally, the digits in the cells with the line form palindromes, i.e. they read the same from both the directions.

Palindrome Sudoku

14 points

Apply standard Sudoku rules.

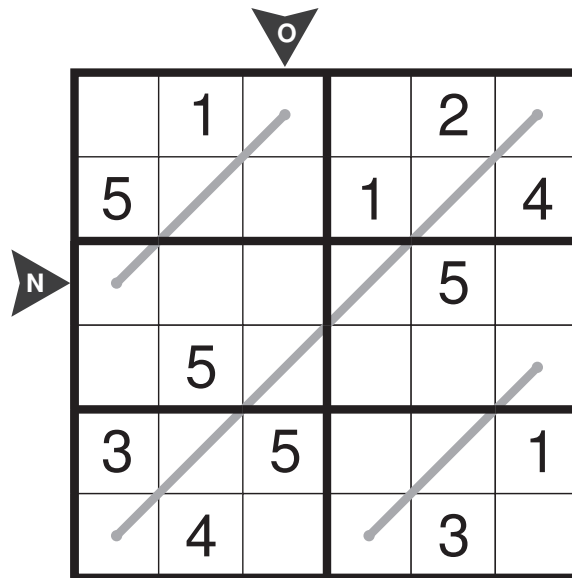
Additionally, the digits in the cells with the line form palindromes, i.e. they read the same from both the directions.

Renban Sudoku

4 points

Apply standard Sudoku rules.

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

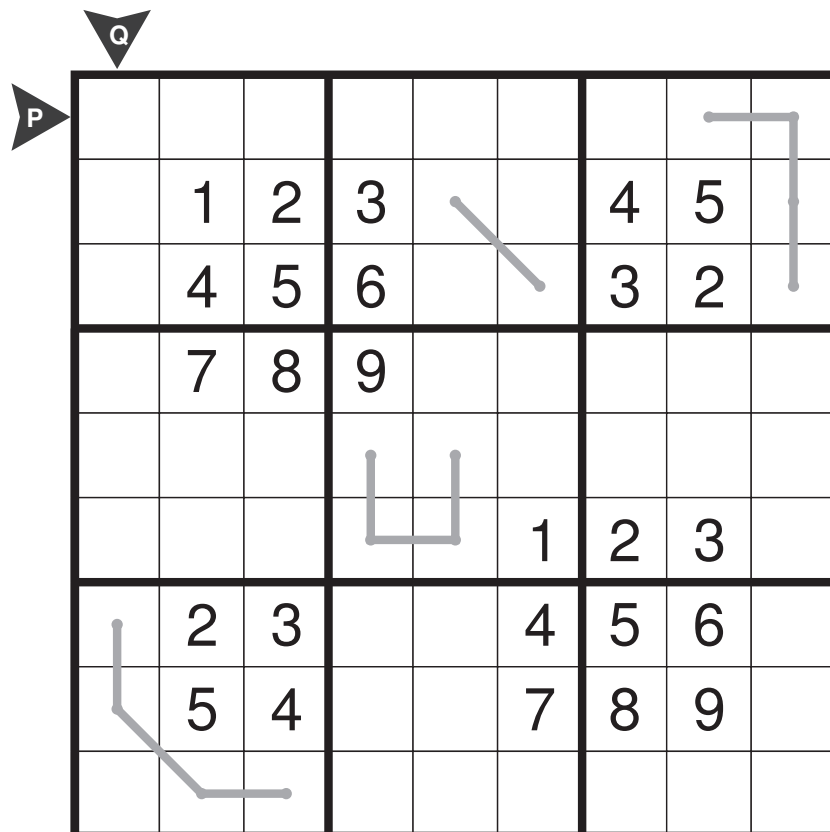


Renban Sudoku

10 points

Apply standard Sudoku rules.

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

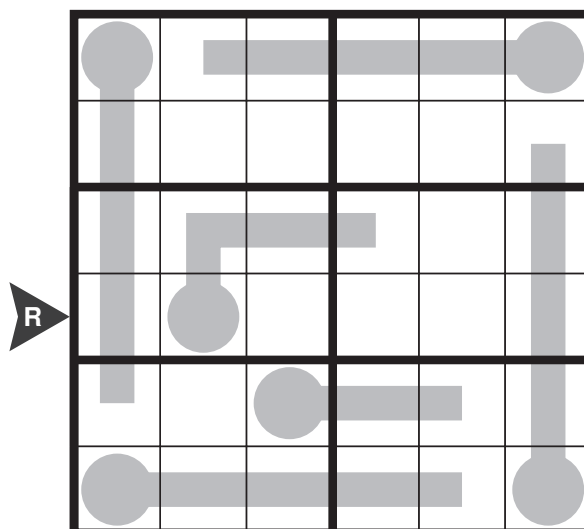


Thermo Sudoku

4 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).

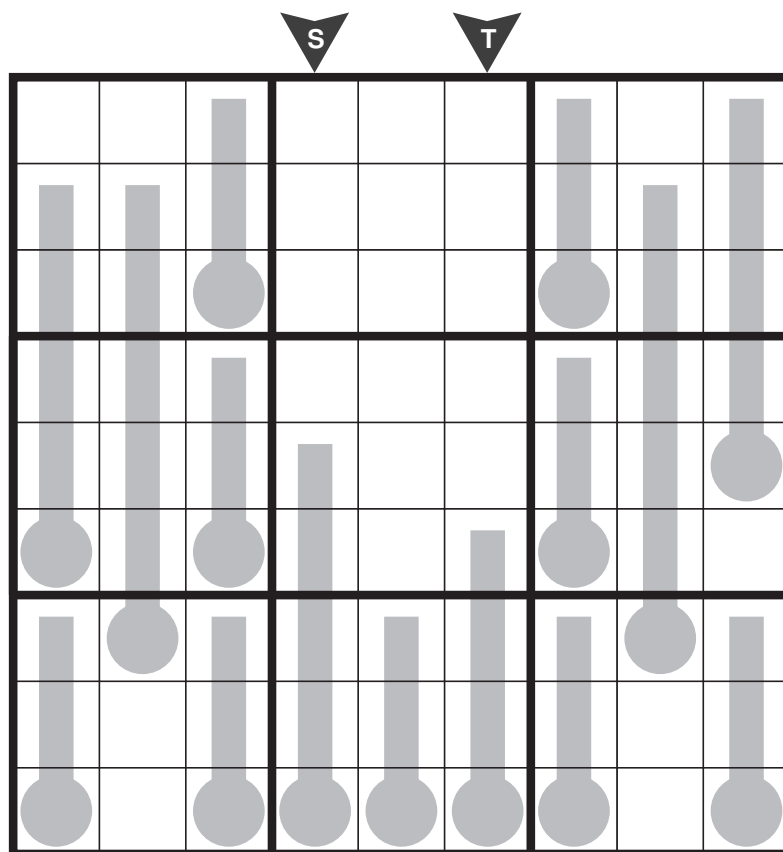


Thermo Sudoku

14 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).



Standard

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



Standard

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



Standard

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



Standard

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



Standard

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



Standard

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



Extra Region

A

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

UnTouch

D

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

Extra Region

B

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

C

UnTouch

E

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

F

Palindrome

H

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

G

Consecutive Pairs

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

K

Palindrome

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

Consecutive Pairs

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

Renban

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

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

Renban

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

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