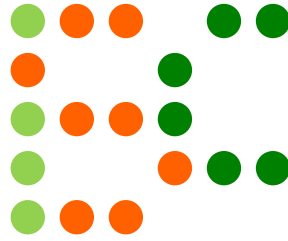


इयवठेकय mahabharat



Episode – 1
22nd – 24th August

Standard Variations by Deb Mohanty

Sudoku Mahabharat rounds will also serve as qualifiers for Indian Sudoku Championship for year 2016. Please check <http://logicmastersindia.com/SM/2015-16.asp> for details.

Important Links

Submission Page : <http://logicmastersindia.com/SM/?test=SM201508>

Discussion Thread : <http://logicmastersindia.com/t/?tid=1044>

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 five widely known variants, namely Diagonal Sudoku, Extra Region Sudoku, Palindrome Sudoku, Untouch Sudoku and Pencil Marks 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 22nd August (but before 24th August), 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 6X6	1, 1, 1, 2
Standard 8X8	5
Standard 9X9	9, 6, 9
Diagonal 6X6, 9X9	2, 10
Extra Region 6X6, 9X9	3, 8
Palindrome 6X6, 9X9	2, 8
UnTouch 6X6, 9X9	2, 14
Pencil Marks 6X6, 9X9	5, 12

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 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 exactly like next 8 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.

The grid contains the following numbers and features:

- Row 1: 2, 8, 5, 3, 6, 7, 1, 4, 9
- Row 2: 14, 7, 5, 8, 3, 6, 2, 9, 4
- Row 3: 6, 4, 7, 2, 9, 8, 1, 5, 3
- Row 4: 7, 2, 5, 9, 8, 4, 6, 3, 1
- Row 5: 4, 3, 8, 6, 1, 2, 5, 9, 7

Shaded regions (No Touch rule):

- 3x3 region in the top-right (rows 1-3, columns 7-9)
- 3x3 region in the bottom-left (rows 7-9, columns 1-3)

Arrows:

- Arrow 'A' points to the bottom-left shaded region.
- Arrow 'B' points to the top-right shaded region.

*This grid is for testing how the printout looks.
If you are solving this not-so-easy grid, do not forget the No Touch rule.*

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	

1 point

C

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

2 point

D

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

Standard Sudoku

5 points

Place a digit from 1 to 8 in each empty cell so that each digit appears exactly once in each row, column and 2X4 box.

F

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

Standard Sudoku

9 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.

H

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

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.

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

8 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.

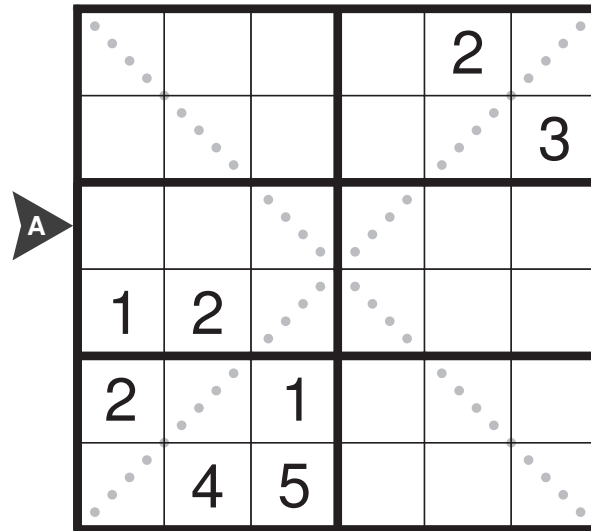
	3	7		1	6		9	5
	1			8			6	
	9	2		3	1		7	6
	8			7			1	
	7	3		5	4		8	9
	5			9			3	

Diagonal Sudoku

2 points

Apply standard Sudoku rules.

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

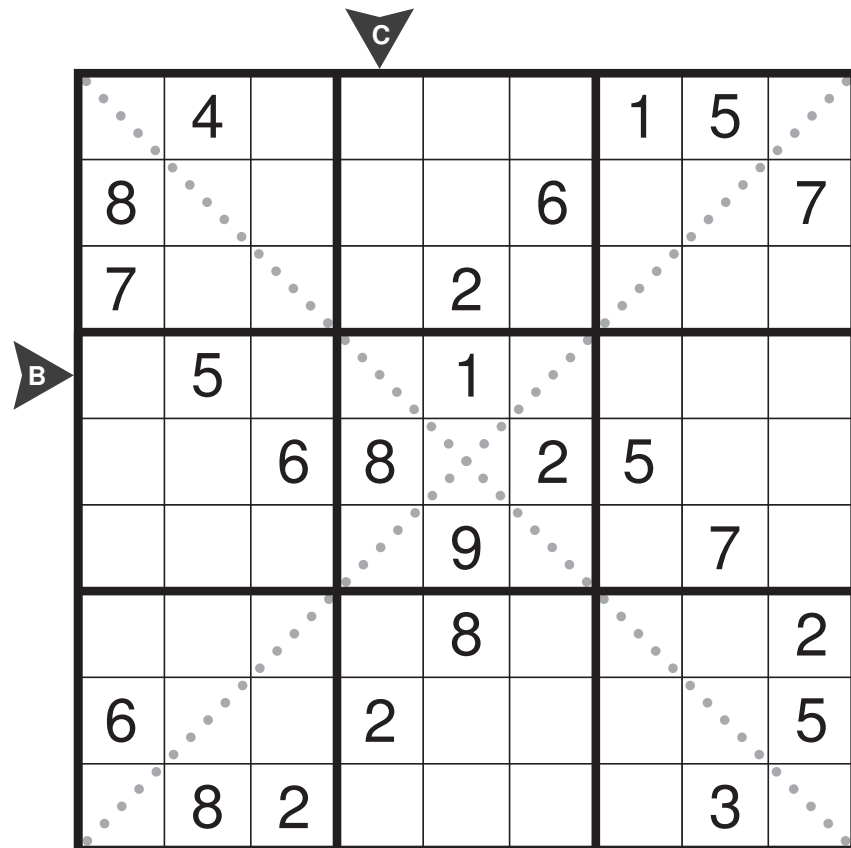


Diagonal Sudoku

11 points

Apply standard Sudoku rules.

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

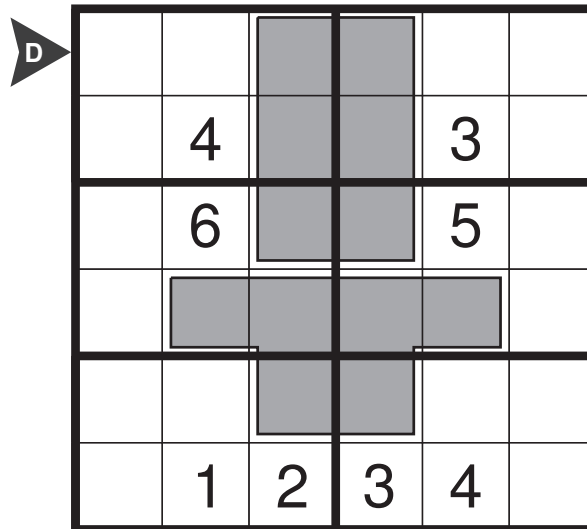


Extra Region Sudoku

3 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.

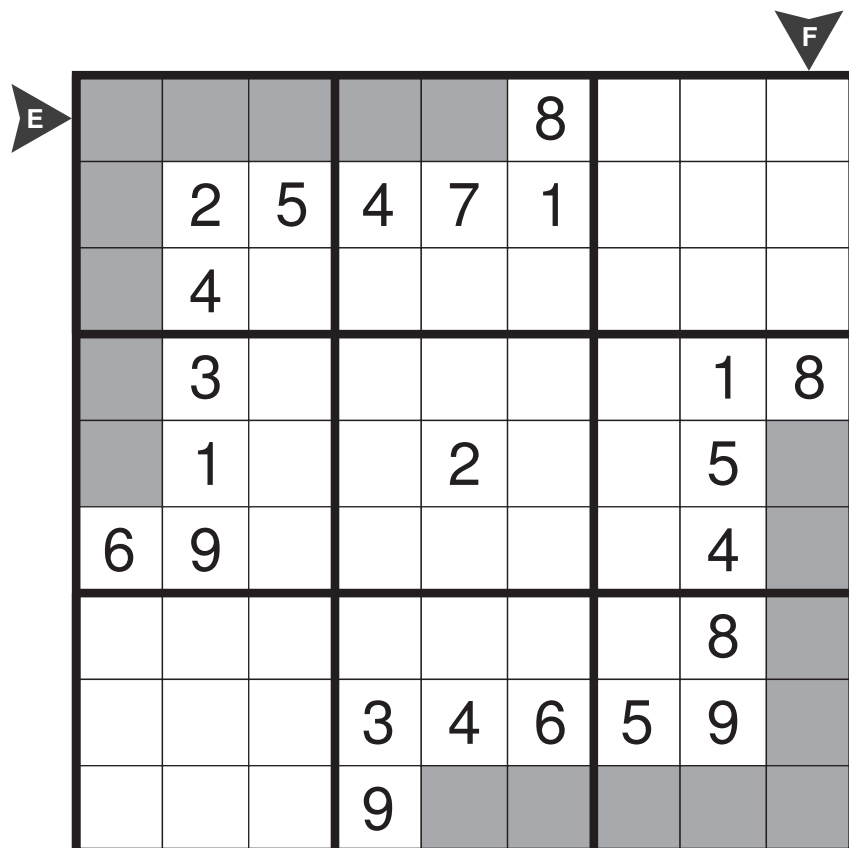


Extra Region Sudoku

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.

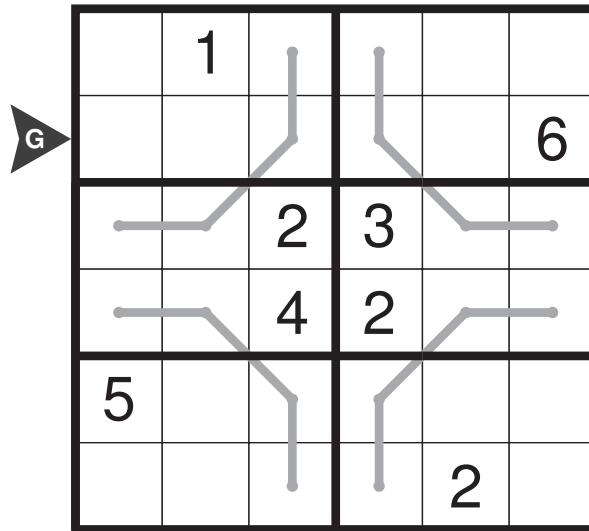


Palindrome Sudoku

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.

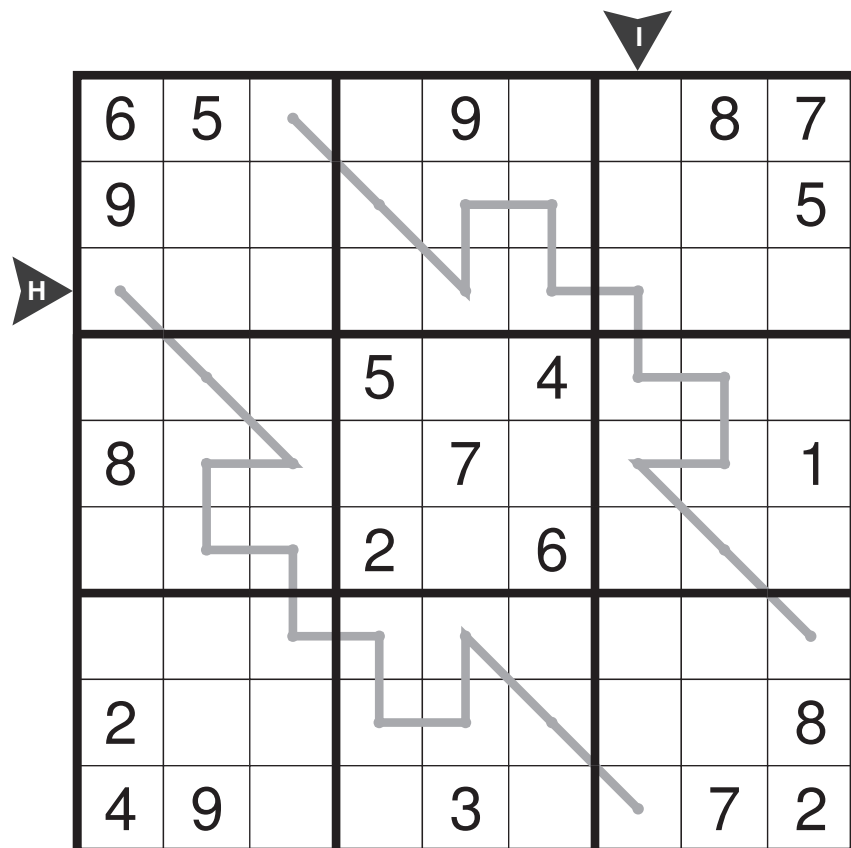


Palindrome Sudoku

8 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.

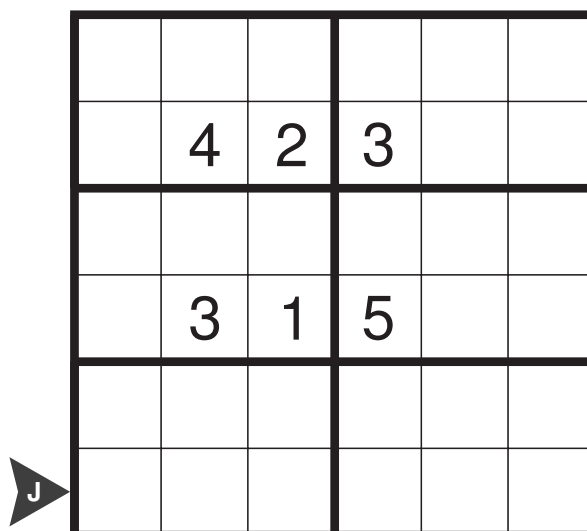


UnTouch Sudoku

2 points

Apply standard Sudoku rules.

Additionally, identical digits do not touch each other diagonally.

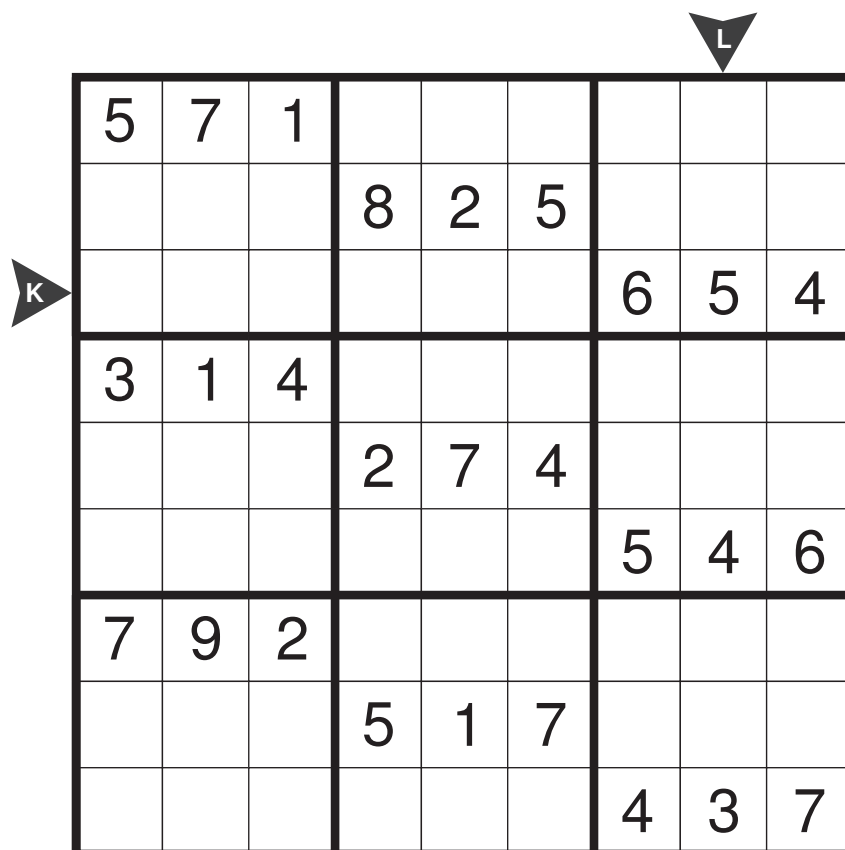


UnTouch Sudoku

12 points

Apply standard Sudoku rules.

Additionally, identical digits do not touch each other diagonally.



Pencil Mark Sudoku

6 points

Apply standard Sudoku rules.

In some cells you find all allowed candidates for the specific cell.

56					56
		12	12		
	12			12	
16					26
	34			34	
13		45	45		13

Pencil Mark Sudoku

12 points

Apply standard Sudoku rules.

In some cells you find all allowed candidates for the specific cell.

	147	569	12	145	69	13	13	
457	234	234	178	589	689	178	368	378
356	127	349	378	248	234	257	467	269
246	145	12	149	378	279	39	348	236
369	346	289	346	24	579	127	238	126
27	67	369	139	167	348	26	568	148
17	258	47	568	369	23	46	47	34
39	235	17	189	456	246	145	49	456
	359	236	137	247	136	149	239	

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

Standard

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

Standard

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

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

Diagonal

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

Extra Region

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

Diagonal

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

Extra Region

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

Palindrome

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

UnTouch

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

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

UnTouch

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

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

Pencil Marks

8	7 ₁₄₇	5 ₅₆₉	2 ₁₂	4 ₁₄₅	6 ₆₉	3 ₁₃	1 ₁₃	9
4 ₄₅₇	3 ₂₃₄	2 ₂₃₄	1 ₁₇₈	5 ₅₈₉	9 ₆₈₉	8 ₁₇₈	6 ₃₆₈	7 ₃₇₈
6 ₃₈₆	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	8 ₂₅₈	4 ₄₇	5 ₅₆₈	9 ₃₆₉	2 ₂₃	6 ₄₆	7 ₄₇	3 ₃₄
3 ₃₉	2 ₂₅₅	7 ₁₇	8 ₁₈₉	6 ₄₅₆	4 ₂₄₆	1 ₁₄₅	9 ₄₉	5 ₄₅₆
5 ₃₈₉	9 ₂₃₆	6 ₁₃₇	3 ₂₄₇	7 ₁₃₆	1 ₁₄₉	4 ₂₃₉	2	8