

QUINZE

25th – 29th October 2019

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Important Links

Submission Page : <http://logicmastersindia.com/2019/10S/>

Discussion Thread : <http://logicmastersindia.com/t/?tid=2716>

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

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

About this Test

This test has fifteen Sudokus, including one mini Sudoku and one classic Sudoku.

How to participate?

- Understand the rules of different Sudokus that will appear in this test. 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 25th October (but on or before 29th October), 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 submissions reduce the potential score to 90%, 70%, 40%, and 0% respectively.

Sudoku	Points
Mini (6x6)	1
Classic (9x9)	3
Odd Even (9x9)	5
Scattered (9x9)	5
Full or Half (9x9)	5
Palindrome (9x9)	7
Extra Region (9x9)	7
1-5-9 (9x9)	7
Clone (9x9)	7
Min Max Sum Killer (9x9)	7
Consecutive Pairs (9x9)	8
Alternating Stripes (9x9)	8
Frame (9x9)	9
Irregular (9x9)	10
Equal (9x9)	11
TOTAL	100

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

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.

Example Credits

- WSC 2019 Instruction Booklet (1-5-9 Sudoku, Alternating Stripes Sudoku, Equal Sudoku)
- “Sudoku for all” blog (Consecutive Pairs Sudoku, Clone Sudoku) – akashdoulani.blogspot.com
- WPF Sudoku GP 2016 IB (Full or Half Sudoku)

01 Mini Classic Sudoku

1 point

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	2				
		3	4		
				5	6
3	5				
		1	5		
				1	3

02 Classic Sudoku

3 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.

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

03 Odd Even Sudoku

5 points

Apply classic Sudoku rules.

Additionally, the cells having a grey circle must contain an odd digit, while cells containing a square must contain an even number. If there is no shape in a cell, it can contain a digit of any parity.

A

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

B

04 Scattered 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, outlined region and the nine grey cells.

Grey cells are not part of any regions.

A

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

B

05 Full or Half Sudoku

5 points

Apply classic Sudoku rules.

Additionally, a shaded circle at the intersection of 2x2 block of cells indicates that the numbers placed in these cells are either all odd or all even. A white circle at the intersection of 2x2 block of cells indicates that exactly two numbers placed in these cells are odd, and exactly two numbers placed in these cells are even.

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

06 Palindrome Sudoku

7 points

Apply classic Sudoku rules.

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

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

07

Extra Regions Sudoku

7 points

Apply classic Sudoku rules.

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

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

08

1-5-9 Sudoku

7 points

Apply classic Sudoku rules.

Additionally, digits in the first column indicate in which column digit 1 is placed in the respective row; digits in the fifth column indicate in which column digit 5 is placed in the respective row; digits in the ninth column indicate in which column digit 9 is placed in the respective row.

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

09 Clone Sudoku

7 points

Apply classic Sudoku rules.

Additionally, digits in each corresponding cell in both identically shaded figures are same.

	9			7			2	1
	5			2				3
A						7		
	1				3			9
	9				5			8
B								
		9		5				
	5			9				
	8	6						

10 Min Max Sum Killer Sudoku

7 points

Apply classic Sudoku rules.

For each cage, the (small) number given for the cage at the upper left cell denotes the sum of the minimum and maximum numbers within the cage.

Digits do not repeat inside a cage.

	6	1		5		8		8
	8					7	4	
A	7		4			9		
				3			2	8
	1				7			4
	3	7	11			2		8
B							6	
	13		3		11			9
			1	6			4	3

11 Consecutive Pairs Sudoku

8 points

Apply classic Sudoku rules.

The numbers placed in marked adjacent cells must be consecutive. Not all such pairs of cells are marked.

				2	3			
		9	1					
	8							
				9				
						5		
					8	1		
		8	7					

12 Alternating Stripes Sudoku

8 points

Apply classic Sudoku rules.

Additionally, “Large” and “small” digits alternate along the grey stripes. A “large” digit is larger than its neighbours on the stripe while a “small” digit is smaller. Digits can repeat on stripes.

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

13 Frame Sudoku

9 points

Apply classic Sudoku rules.

Additionally, the numbers outside the grid equal the sum of the digits appearing in the first box (till the next bold line) seen from that edge of the grid.

	17	21	7	11	20	14	21	9	15	
13										19
A										11
12										15
14										15
										10
12										20
14										12
B										13
13										20
	18	6	21	23	12	10	6	22	17	

14 Irregular Sudoku

10 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.

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

15 Equal Sudoku

11 points

Apply classic Sudoku rules.

Additionally, in each dotted cage the sum of the odd digits is equal to the sum of the even digit(s).

Digits do not repeat within a cage.

	3							
A	4							
					6	1	8	
					8			3
	3		9					
	6	5	2					
B								8
							5	

Mini Sudoku

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 Sudoku

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

Odd Even Sudoku

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

Scattered Sudoku

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

Full or Half Sudoku

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

Palindrome Sudoku

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

Extra Region Sudoku

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

1-5-9 Sudoku

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

Clone Sudoku

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

Min Max Sum Killer Sudoku

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

Consecutive Pairs Sudoku

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

Alternating Stripes Sudoku

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

Frame Sudoku

	17	21	7	11	20	14	21	9	15	
13	5	6	2	4	8	1	9	3	7	19
A	9	7	4	5	3	6	8	1	2	11
12	3	8	1	2	9	7	4	5	6	15
14	2	9	3	7	5	4	6	8	1	15
	7	4	8	1	6	9	5	2	3	10
12	1	5	6	3	2	8	7	4	9	20
14	8	1	5	9	7	3	2	6	4	12
B	6	3	9	8	4	2	1	7	5	13
13	4	2	7	6	1	5	3	9	8	20
	18	6	21	23	12	10	6	22	17	

Irregular Sudoku

		B								
	6	7	3	8	1	9	4	5	2	
A	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	

Equal Sudoku

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