

GET OVERLAPPED!

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Test page: <http://logicmastersindia.com/2019/02S/>

Forum thread: <http://logicmastersindia.com/forum/forums/thread-view.asp?tid=2690>

About this Test:

- This test presents a collection of sudokus – with a bunch of overlapping Sudoku and its variants; by the way, some classic sudokus to begin with.

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 [Start date] (but before [End date]), login at the submission page using your LMI user id 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 print the pdf and solve on paper.
- Each Sudoku will be marked with two (or more) arrows for answer key.
- **Online solving may be available for sudokus 1-12.**
- **Instant Grading will be available**

For entering answer key:

- Fill the answer form with digits along the marked arrow(s)
- Digits outside the grid SHOULD NOT be included in the answer key
- Click Submit button.

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.

Classics – 3, 5, 8, 12 points	Irregular – 23 points
Doubles – 6, 14 points	No Touch – 17 points
Diagonal – 12 points	Treble – 27 points (7 points per grid)
Killer – 18 points	Samurai – 50 points (9 points per grid)
Non-consecutive – 15 points	Total: 210 points

Unless otherwise stated, no partial credits will be given.

Bonus

- If you submitted all Sudokus correctly, you can have bonus points 2 points per minute saved, computed up to seconds.

Time limit

- 120 minutes.

General Rules

- To make the rules less repetitive, you will see following line “Apply Classic 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 least, 2 lettered arrows. If you are solving on paper, you need to submit the digits in these arrows, in order, including the givens, starting from the furthest left or top.
- For puzzles 1-12, the term “ x^{th} row/column” refers to the x^{th} row/column starting from the top/furthest left of the entire grid, ignore which grid that row belongs to.
- For the Samurai puzzle (No. 13) ONLY: The term “ x^{th} row/column” refers to the x^{th} row/column starting from the top/furthest left of the mentioned grid. (To avoid confusion, a blank grid contains a layout of a Samurai Sudoku puzzle will be provided)

About the Sudoku Booklet

- The password protected Sudoku booklet will have 12 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 9 pages in this instruction booklet. The font sizes, cell sizes, colours, 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. Classic Sudoku (3, 5, 8, 12 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.

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

Answer: A: 5th row; B: 9th row.

5-6. Doubles (6, 14 points)

Apply Classic Sudoku rules. Additionally, some regions are overlapped among the grids.

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

Answer: A: All 12 digits in the 4th row; B: 12th column.

7. Diagonal (12 points)

Apply Classic Sudoku rules. Additionally, some regions are overlapped among the grids. Within each 9x9 grid, each marked diagonal must contain non-repeated digits 1-9.

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

Answer: A: All 12 digits in the 8th row; B: All 12 digits in the 6th column.

8. Killer (18 points)

Apply Classic Sudoku rules. Additionally, some regions are overlapped among the grids. The sum of digits in cells inside every cage must equal to the total given for the cage at the upper left cell. Digits do not repeat within a cage.

Answer: A: All 12 digits in the 9th row; B: 3rd column.

9. Non-consecutive (15 points)

Apply Classic Sudoku rules. Additionally, some regions are overlapped among the grids. No two cells sharing the same border contain consecutive digits.

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

Answer: A: All 12 digits in the 8th row; B: All 12 digits in the 5th column.

10. Irregular (23 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.

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

Answer: A: All 12 digits in the 9th row; B: 2nd column.

11. No Touch (17 points)

Apply Classic Sudoku rules. Additionally, some regions are overlapped among the grids. Identical digits may not touch each other diagonally.

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

Answer: A: 10th row; B: All 12 digits in the 6th column.

Solutions

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

Classic

Answer Key:
 A 692143875
 B 827564931

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

Doubles

Answer Key:
 A 283196754382
 B 269841753

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

Diagonal

Answer Key:
 A 896172345968
 B 391847526193

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

Killer

Answer Key:
 A 693817245693
 B 748659123

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

Non-consecutive

Answer Key:

- A 683714259417
- B 937246815739

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

Irregular

Answer Key:

- A 497531628794
- B 761453289

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

No Touch

Answer Key:

- A 943156287
- B 235467198325

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

Treble

Answer Key:

- A 235184769
- B 892615473
- C 317846592
- D 589237641
- E 579648123
- F 453871962

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

Samurai

Answer Key:

A 527961438

B 614897352

C 967854231

D 459326781

E 156749238

F 924815736

G 158476293

H 489216375

I 238417956

J 187459236