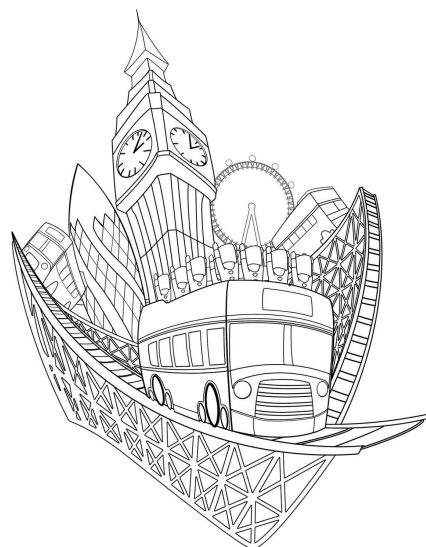


LMI Sudoku Test "Road to London"

21st - 23rd June

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About the test: This is a selection of puzzles from Serbian Sudoku Championship, which was held as qualifying for the upcoming WSC in London. It consists of 15 puzzles and its duration is 120 minutes. The list of Sudoku types and points distribution are shown below. The distribution of points is based on the times needed by the test solver and participants of Serbian Sudoku Championship but your personal experience and preference may differ. The difficulty of the Sudokus in the IB is not representative for the difficulty of the Sudokus in the real test.

1	Irregular Sudoku 7x7	15
2	Union Jack - Diagonal Sudoku	35
3	God Save the Queen	45
4	Extra Regions Sudoku	45
5	Thermo Sudoku	55
6	Greenwich	35
7	Wimbledon	40
8	Double-Deckers	30

9	X-Sums Sudoku	45
10	Before 1 - After 9 Sudoku	55
11	Doppelblock Sudoku	50
12	Palindrome Sudoku	45
13	Inside Skyscrapers	55
14	Toroidal Skyscrapers	55
15	Point to Next	45
TOTAL		650

Solution codes: Each Sudoku will be marked with two lettered arrows (two rows, two columns or a row and a column). You need to submit the digits (the letters in puzzle 1) in marked rows/columns, in order, including the givens. In puzzle 11 (Doppelblock) use "X" for the black cells.

Submission link: <http://logicmastersindia.com/2014/06S/>

Instant Grading: This test uses Instant Grading where a solver can submit any individual puzzle once finished and receive confirmation on whether it's correct or not. The first, second, third and fourth incorrect submission reduces the potential score to 90%, 70%, 40% and 0% respectively (and remains 0% after this).

Bonus: Players submitting all Sudokus correct will get **five** points per minute saved as bonus.

Many thanks to Zrinka Kokot for test solving, to Nikola Živanović for his support and encouragement and to Deb Mohanty and LMI for the given opportunity to present this test online. I hope that no one will be disappointed...

1. IRREGULAR SUDOKU 7x7

15 points

Place a letter C, D, L, N, O, S or W in each empty cell so that each letter appears exactly once in each row, column and outlined region

Note: example - 5x5 with letters A, B, C, D and E.

B				
			C	
E		C		B
	A			
				E

B	C	D	E	A
A	E	B	C	D
E	D	C	A	B
D	A	E	B	C
C	B	A	D	E

2. UNION JACK - DIAGONAL SUDOKU

35 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 two main diagonals.

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

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

3. GOD SAVE THE QUEEN

45 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. Number 9 represents a chess Queen and Queens must not attack each other (two Queens can't be placed along the same row, column or diagonal of any length). In addition, within each of the outlined region 9 and 1 ("Queen" and "God") must be placed in the neighboring cells (including diagonally).

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

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

4. EXTRA REGIONS SUDOKU










45 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 marked extra regions.

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

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

55 points

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

35 points

				3				
				8				
5								7
	4						8	
8				4				5

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

40 points

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

30 points

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

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

9. X-SUMS SUDOKU

45 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. The numbers outside the grid indicate the sum of the first X digits in the respective row or column, with X being a digit in the first cell in the corresponding direction.

	12	11	10	15	39	
11						36
36			5			45
11						30
39			8			21
10						35
	26	17	36	45	24	

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

10. BEFORE 1 - AFTER 9 SUDOKU

55 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. The numbers outside the grid indicate the sum of all digits before the digit 1 in that row/column or after the digit 9 in that row/column, going from left to right and from top to bottom.

before 1		17	36	26		40
	after 9		20	26	13	17
25	8					
			4			
						5
30						
17						
39	15					
9		4				
					8	
25	28					

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

11. DOPPELBLOCK SUDOKU

50 points

Blacken exactly two cells in each row, column and outlined region and then place a digit from 1 to 7 in each remaining empty cell so that each digit appears exactly once in each row, column and outlined region. The numbers outside the grid indicate the sum of the digits between two black squares in the respective row or column.

4 22 12 12 26 19 2

5								
28								
4								
0								
5								
11								
10								
18								
12								

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

12. PALINDROME SUDOKU

45 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. Numbers placed along marked lines must form a palindromic sequence, e.g. 1234321.

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

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

13. INSIDE SKYSCRAPERS

55 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. The numbers in the grid represent buildings of different heights with so many floors as the number indicates. The numbers in the cells with the arrow(s) indicate how many buildings may be seen watching from this place into direction of the arrow(s) (a building can only be seen if the other buildings in front of it are smaller).

				8				
		9				5		
	5						8	
				3				
		5				8		
				5				

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

14. TOROIDAL SKYSCRAPERS

55 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. The numbers in the grid represent buildings of different heights with so many floors as the number indicates. The numbers in the cells with the arrow indicate how many buildings may be seen watching from this place into direction of the arrow, not only to the edge of the grid, but circularly around the grid (a building can only be seen if the other buildings in front of it are smaller).

			8		6			
		8		3		1		
	6						4	
		3		6		4		
			5		9			

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

15. POINT TO NEXT

45 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. If digit 'n' is placed in a cell with arrow, digit 'n+1' must be placed 'n' cells far away, in the direction pointed by the arrow.

				1				
		←		4	↓	↑		
→		↓						
		↑						
→	6	→			→	←	8	
					←	↓		
		→	←					
				6				
				8				

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