

Logic Masters India

November 2010 Sudoku Test

Renban Grouped Sudokus

Weekend of 13th/14th November 2010

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INSTRUCTION BOOKLET

Submission Link: <http://logicmastersindia.com/lmitests?test=M201011S>

Forum Link: <http://logicmastersindia.com/forum/forums/thread-view.asp?tid=192>

Points Table

	Sudoku Type	6X6	9X9
1	Classic sudoku	6	28
2	Shifted sudoku	7	30
3	Diagonal sudoku	9	32
4	Argyle sudoku	15	38
5	Anti-knight sudoku	17	40
6	Non-consecutive sudoku	13	36
7	Symmetric unequal sudoku	19	42
8	Non-touching sudoku	16	34
9	Chaos sudoku	24	54
10	Diagonally non-consecutive sudoku	13	52
Total	Points	525	
	Time	100 Minutes	
	Bonus Points per Minute Saved	(Total Score / 50) – 6	

In this contest it will appear classical sudoku and some variants, all both in 6x6 and 9x9 grids. *This test is based on a theme called, Renban Groups.* In all Sudoku Grids, there will be several Renban Groups. Each Renban Group is a set of grey painted cells connected to each other, either orthogonally or diagonally. Each Renban Group must hold **distinct consecutive** digits, in any order. Renban groups may cross across 3X3 boxes / 2X3 boxes / irregular regions.

1. Classic Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and 2x3 (3x3) standard block. Besides Renban Group constraints apply.

Example:

	1			3	
6					2
		6			
			5		
4					
				1	

Solution:

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

2. Shifted Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and **shifted** 2x3 (3x3) block. Besides Renban Group constraints apply.

Example:

4			5		2
		5			1
3	2		6		
1		4			3

Solution:

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

Note: If you check the standard 2x3 blocks for the example you can see that digits 1 to 6 are included in them. But this is just an incidental situation. It mustn't be like this in the actual puzzle grids, e.g. some digits may appear more than once in standard 2x3 (standard 3x3) blocks.

3. Diagonal Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and 2x3 (3x3) standard block. All digits on two main diagonals must also be different. Besides Renban Group constraints apply.

Example:

		4	3		
	5			2	
	6			1	
		6	1		

Solution:

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

4. Argyle Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and 2x3 (3x3) standard block. All the digits on the marked diagonal lines must also be different. Besides Renban Group constraints apply.

Example:

		6			
	4			3	
					1
1					
	2			6	
			4		

Solution:

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

5. Anti-Knight Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and 2x3 (3x3) standard block. Cells connected with a chess-knight move could not contain same digits. Besides Renban Group constraints apply.

Example:

		6	1		
6					1
2					5
		2	5		

Solution:

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

6. Non-Consecutive Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and 2x3 (3x3) standard block. There exist no neighbouring cells with consecutive digits. Besides Renban Group constraints apply.

Example:

		1	4		
	5			4	
	2			1	
		2	5		

Solution:

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

7. Symmetric Unequal Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and 2x3 (3x3) standard block. Cells that are 180° symmetric to each other cannot have same digits. Besides Renban Group constraints apply.

Example:

		6			
1			4		
		1			3
			3		

Solution:

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

8. Non-Touching Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and 2x3 (3x3) standard block. Two same numbers can not touch each other diagonally. Besides Renban Group constraints apply.

Example:

			3		
		1			
	6			1	
	1			4	
			1		
		5			

Solution:

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

9. Chaos Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and outlined area. Besides Renban Group constraints apply.

Example:

3			1		
					6
		4	3		2
5		1	2		
		6			1

Solution:

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

10. Diagonally Non-Consecutive Sudoku with Renban Groups

Place the digits 1 to 6 (1 to 9) in every row, column and 2x3 (3x3) standard block. There exist no diagonally neighbouring cells with consecutive digits. Besides Renban Group constraints apply.

Example:

5					6
			5		
		5			
			1		
		1			
6					1

Solution:

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

This instruction booklet is prepared in order to give examples for the puzzle types. But only 6x6 examples are included here. If you want to see some 9x9 examples (but I must say that some of them are tough and this contest will include much easier 9x9 grids with respect to them) you may check the following link:

http://www.logic-masters.de/Raetselportal/benutzer_eingestellt.php?name=zhergan

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