

Indian Sudoku Championship 2011

Sudoku Types

<http://logicmastersindia.com/ISC2011>

Indian Sudoku Championship 2011

Sudoku, dubbed as the hottest puzzle sensation since the Rubik's Cube gained worldwide popularity in early 2005. The first World Sudoku championship (WSC) was held in March 2006 in Lucca, Italy. The 6th WSC in 2011 will be held in Hungary. Logic Masters India in association with various reputed colleges across the country would like to invite you to test your logical skills in the Indian Sudoku Championship and get an opportunity to represent India at the WSC. All resident Indian nationals, irrespective of age, can participate in Indian Sudoku Championship. The sudoku-solving skills of contestants will be tested through the regular Classic sudokus as well as different sudoku variations which appear in the WSCs. Top rankers at the Indian Sudoku Championship will be eligible to represent India at the 6th World Sudoku Championship to be held in Hungary.

Rules and Regulations

The Indian Sudoku Championship will consist of 13 regional rounds held in the months of January to March 2011. The top 3 from each of these regional rounds will be invited for the national finals in May 2011. The team which will represent India at the World Sudoku Championship will be selected on the basis of the performance in the Sudoku Championship National Final.

There are several ways in which you could qualify for a position in the National Finals:

- You could be amongst the top 3 at one of the regional rounds.
- You could be amongst the top 10 from the National Online Preliminary Round.

Regional Rounds

The 13 regional rounds will be held as a part of the college festivals in reputed colleges in different colleges across the country. The regional rounds will be held in the cities of Mumbai, Kharagpur, Rourkela, Goa, Guwahati, Bangalore, Kanpur, Hyderabad, Ranchi, Bhopal, Delhi, Roorkee and Pilani in the months from January to March.

The regional round finals will be held between the top 60 participants from the region. The 60 finalists will be selected from Regional Prelims which will be open to all participants. For more details regarding the venue and dates of the regional round nearest to you please have a look at the schedule at ISC webpage <http://logicmastersindia.com/ISC2011>

National Online Preliminary Round

The National Online Preliminary round will be held in May 2011.

The online round will consist of a two hour test where the sudoku solving skills of participants will be tested by several sudokus. The instructions for these will be announced in advance. The dates and other details will be announced soon.

National Finals

The winners of regional rounds and National Online Preliminary Round will be invited for National Finals. The National Finals will consist of multiple rounds of Sudoku-solving to select the best participants to represent India at WPC 2011, Hungary. The sudoku instructions will be given to the finalists a week in advance of the national finals.

Rules of Sudoku

A typical Sudoku grid is of 9X9 cells with some digits already filled in. The remaining empty cells are to be filled in with digits from 1 through 9 so that following condition is met.

Every digit from 1 through 9 has to appear exactly once in every row, every column, and every 3X3 box. No row or column or 3X3 box can have repeated digits.

Also note that

- The existing digits can't be removed or erased.
- The grid has to be completely filled; otherwise it will be considered as incorrect. Writing 2 digits in one cell will also be considered as incorrect.
- All the Sudokus in this competition will have exactly one solution.
- Guess work is not needed to solve any Sudoku in this competition. We strongly advise you not to guess any digit.
- Some of the Sudokus will have smaller grids of size 6X6. In those Sudokus, 1-6 will be used.

Sudoku Variations

Sudoku has a lot of variations, including many basic variations. Like other national and international competitions, we'll have some basic variations in each of the rounds.

- Diagonal Sudoku
- Odd Even Sudoku
- Extra Region Sudoku
- Irregular Sudoku (no 3X3 boxes)
- Sudoku Trio
- Killer Sudoku

These variations will have additional rules along with standard rules.

We'll also have some 6X6 Sudokus in all rounds. In a 6X6 Sudoku, digits from 1 to 6 have to be used in each row, column and 2X3 boxes. All other rules apply. 6X6 Sudokus will be much easier than 9X9 Sudokus, so they will carry much less points.

Classic Sudoku (1-9)

Every digit from 1 through 9 has to appear exactly once in every row, every column, and every 3X3 box.

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

E
X
A
M
P
L
E

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

Classic Sudoku (1-6)

Every digit from 1 through 6 has to appear exactly once in every row, every column, and every 2X3 box.

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

E
X
A
M
P
L
E

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

Diagonal Sudoku 1-9

Every digit from 1 through 9 has to appear exactly once in every row, every column, every diagonal, and every 3X3 box. The diagonals are marked with circles in the grid.

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

EXAMPLE

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

Extra Region Sudoku 1-6

Every digit from 1 through 6 has to appear exactly once in every row, every column, every extra region, and every 2X3 box. The extra regions are of 6 cells each and are shaded with different colors in the grid.

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

EXAMPLE

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

Odd Even Sudoku 1-9

Every digit from 1 through 9 has to appear exactly once in every row, every column, and every 3X3 box. There are some cells which are shaded. All shaded cells must contain even digits. All white cells must contain odd digits.

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

EXAMPLE

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

Odd Even Sudoku 1-6

Every digit from 1 through 6 has to appear exactly once in every row, every column, and every 2X3 box. There are some cells which are shaded. All shaded cells must contain even digits. All white cells must contain odd digits.

1		3			
	4				
				3	
			4		2

EXAMPLE

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

Irregular Sudoku 1-6

Every digit from 1 through 6 has to appear exactly once in every row, every column, and every outlined region. The outlined regions have 6 cells each and are separated from each other by dark lines.

			4		
		3		2	
	2				6
1				5	
	5		3		
		4			

E
X
A
M
P
L
E

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

Sudoku Trio 1-9

Every digit from 1 through 9 has to appear exactly once in every row, every column, and every 3X3 box. Some cells will have circles inside and some others will have squares. Cells with circles must contain the digits 1, 2 and 3. Cells with squares must contain the 4, 5 and 6. Blank cells must contain the digits 7, 8 and 9.

	□	□	○	○		□	○	
○		□	5	○	8	□		○
○	○	8		□	□	3	□	
□	8	□			○	○	3	□
○	○		□		□	○		□
	5	○	□	○	○		4	
	○	2	○	□		9	□	□
□	□	○	8		6		○	○
□			○	□	○	□		○

E
X
A
M
P
L
E

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

Killer Sudoku1-6

Every digit from 1 through 6 has to appear exactly once in every row, every column, and every 2X3 box. The sum of digits in cells inside every cage must equal the total given for the cage at the upper left cell. Each digit in the cage must be unique.

7			18			9	
				6			13
11		9			3		
		3			7		
	10			15			7
8							

E
X
A
M
P
L
E

7	1	2	18	5	4	9	6	3	
	4	6	3	6	1	5	13	2	
11	3	9	5	4	3	2	1	6	
	6	3	1	2	7	3	4	5	
	2	10	4	6	15	5	3	7	1
8	5	3	1	6	2	4			

Killer Sudoku1-9

Every digit from 1 through 9 has to appear exactly once in every row, every column, and every 3X3 box. The sum of digits in cells inside every cage must equal the total given for the cage at the upper left cell. Each digit in the cage must be unique.

13			4			6			20	21	
17		14			21						
				8			30				12
			31		18	13	14			16	
11											
	9								12		18
					7				22		
23			15								
				16		7			7		

13	6	7	4	3	1	6	2	4	20	21	5	8	9
17	2	14	21	5	7	8	9	6	1	3			
	8	9	1	8	3	5	30	6	2	4	12	7	
	7	1	31	4	18	13	14	2	8	16	9	5	
11	3	2	8	4	9	5	7	6	1				
	9	5	6	9	8	1	7	3	12	18	2	4	
	4	3	2	5	7	6	1	22	9	7	8		
23	9	5	15	7	2	4	8	1	3	6			
	1	8	6	16	9	7	3	4	7	5	2		