

In Association with



**Logic Masters India** 

### **Sample Booklet**

**Note:** This booklet is mainly meant to serve as practice to those who are new to Sudoku competitions and to give an idea of the structure of the online rounds. Please read the LMI F.A.Q. to know more about how to participate in LMI competitions, register for a free LMI login id if you don't have one, and communicate that to us. We will be enabling LMI ids of paying applicants to participate in ISKL. We want everyone to do their best so please familiarize yourself with the way online competitions are conducted and get all your queries addressed now to avoid surprises at the time of competition.

#### Links and Contact:

LMI F.A.Q.: http://logicmastersindia.com/forum/forums/thread-view.asp?tid=381

LMI Registration: http://logicmastersindia.com/forum/register.asp

Technical queries and LMI login usernames can be communicated to <u>prasanna16391@gmail.com</u>. Prasanna Seshadri is managing the content and technical part of ISKL on behalf of Logic Masters India.

#### **General structure**

The following document contains all Sudoku types which will appear in ISKL. These are all Sudokus which have appeared on past contests on Logic Masters India like Sudoku Mahabharat, which have been used for National qualifiers in previous years. The exact number of Sudokus will be given at a later date depending on the difficulty levels and creative themes that our authors come up with but this structure is close to how it will be, and the types that will appear are accurate for the later rounds.

#### Round 1

Round 1 will contain 6x6, 8x8 and 9x9 Standard Sudokus.

#### Round 2

Round 2 will have 50% Standard Sudokus of the three sizes mentioned above. It will also have some easy variations, in 6x6 and 9x9 sizes.

#### Round 3

Round 3 will have around 30% Standard Sudokus, and there will be some variations repeated from Round 2, along with some newer, slightly more difficult ones.

#### Round 4

Round 4's details are not inclusive in this sample booklet and will be released later.

Sample Sudokus are given on the following pages of this document to give an indication of what will appear in Rounds 1-3 online on Logic Masters India, and these will serve as good practice for the online rounds.

**Answer Keys:** Those of you who are new to online contests may wonder what the arrows labeled with letters are. For more on this, please read the F.A.Q. page linked above. This is also included there.

# Round 1 Standard Sudoku 6x6

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.



These 6x6 Sudokus were written by Deb Mohanty for Sudoku Mahabharat 2014-15.

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.



These 6x6 Sudokus were written by Prasanna Seshadri for Sudoku Mahabharat 2014-15.

### 3 points

Place a digit from 1 to 8 in each empty cell so that each digit appears exactly once in each row, column and 2X4 box.

This Sudoku was written by Deb Mohanty for Sudoku Mahabharat 2014-15.

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

# Standard Sudoku 8x8

### 3 points

Place a digit from 1 to 8 in each empty cell so that each digit appears exactly once in each row, column and 2X4 box.

This Sudoku was written by Prasanna Seshadri for Sudoku Mahabharat 2014-15.

_		В						
	1	2			6			5
			3	4				
			8		5	6		
							7	8
A	8	6						
			4	2		1		
					7	5		
	5			7			3	1

### 5 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.

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

# Standard Sudoku 9x9

### 6 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.

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

### 5 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.

This and the previous two Sudokus were written by Deb Mohanty for Sudoku Mahabharat 2014-15.

Standard
Sudoku 9x9

### 5 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.

_							В		
	1			6		3			8
	2			5		4			7
		3	4				5	6	
A									
			3	4		8	9		
		2			5			1	
		1			6			2	
			8	7		5	3		
	9								6

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

### 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.

### Standard Sudoku 9x9

### 5 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.

This and the previous two Sudokus were written by Prasanna Seshadri for Sudoku Mahabharat 2014-15.

_								В	
	5						1	2	
								3	4
			1	2					5
	6			3	4				
		3			5	6			
						7	8		
	2		4				9		
A		6			2				
			8			4			6

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

# Round 2 Standard Sudoku 6x6

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 points

1 points





D	2 points									
	4	6			3					
		1	2							
		5	4							
2			5	4						

### 5 points

Place a digit from 1 to 8 in each empty cell so that each digit appears exactly once in each row, column and 2X4 box.

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

# Standard Sudoku 9x9

### 9 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.

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

### 6 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.

# Standard Sudoku 9x9

### 8 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	1	9			
			3				4		
		6						2	
	1								7
J									
		9	8	1		7	2	4	
		4		7		3		6	
		2		9		8		3	
		8		2		1		7	

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

# Diagonal Sudoku 6x6

### 2 points

Apply standard Sudoku rules.

Additionally, each extra main diagonal (marked by a line) must contain digits from 1-6.



### Diagonal Sudoku 9x9

### 11 points

Apply standard Sudoku rules.

Additionally, each extra main diagonal (marked by a line) must contain digits from 1-9.

	••••	1	2	7					•
	6	•	8	2				•	
	9	3	••••				•		
	5	6		•••		•			
в					••••				
				•••		••••		7	2
с			•				••••	8	4
		•				7	9	••••	3
	•					3	7	5	••••

# Extra Region Sudoku 6x6

#### 3 points

Apply standard Sudoku rules.

Additionally, each extra region must contain digits from 1-6. The extra regions are of 6 cells each and are shaded / caged in the grid.



### Extra Region Sudoku 9x9

### 8 points

Apply standard Sudoku rules.

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

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

# Palindrome Sudoku 6x6

#### 3 points

Apply standard Sudoku rules.

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



### Palindrome Sudoku 9x9

### 8 points

Apply standard Sudoku rules.

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



# Untouch Sudoku 6x6

#### 2 points

Apply standard Sudoku rules.

Additionally, identical digits do not touch each other diagonally.



# Untouch Sudoku 9x9

#### 12 points

Apply standard Sudoku rules.

Additionally, identical digits do not touch each other diagonally.



All Sudokus for the Round 2 Section of this Sample Booklet were written by Deb Mohanty for Sudoku Mahabharat 2015-16.

# Round 3 Standard Sudoku 6x6

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					
			3		6	
		4		1		3
		2				4
в						
	6					5

1 points

### Standard Sudoku 8x8

### 4 points

Place a digit from 1 to 8 in each empty cell so that each digit appears exactly once in each row, column and 2X4 box.

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

### 5 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.

### Standard Sudoku 9x9

#### 6 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.

All the Classics taken for this section were written by Prasanna Seshadri for Sudoku Mahabharat 2015-16.

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

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

# Diagonal Sudoku 6x6

### 3 points

Apply standard Sudoku rules.

Additionally, each extra main diagonal (marked by a line) must contain digits from 1-6.



# Diagonal Sudoku 9x9

### 11 points

Apply standard Sudoku rules.

Additionally, each extra main diagonal (marked by a line) must contain digits from 1-9.

	••••	4					7	•
A	5	•		4	1		•	3
В			••••	8	2	•••		
		1	2	••••	•	5	3	
		5	4	•	••••	7	2	
			•	9	5	••••		
	7	•		1	4		•••••	6
	•	9					5	••••

# Extra Region Sudoku 6x6

#### 2 points

Apply standard Sudoku rules.

Additionally, each extra region must contain digits from 1-6. The extra regions are of 6 cells each and are shaded with different colors in the grid.



### Extra Region Sudoku 9x9

### 13 points

Apply standard Sudoku rules.

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

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

# Palindrome Sudoku 6x6

#### 2 points

Apply standard Sudoku rules.

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



### Palindrome Sudoku 9x9

### 15 points

Apply standard Sudoku rules.

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

The Diagonals, Extra Regions, and Palindromes taken for this section were written by Rishi Puri for Sudoku Mahabharat 2014-15.



### Even Sudoku 6x6

### 3 points

Apply standard Sudoku rules.

Shaded cells must contain even digits.



# Even Sudoku 9x9

### 8 points

Apply standard Sudoku rules.

Shaded cells must contain even digits.

These Even Sudokus were written by Deb Mohanty for Sudoku Mahabharat 2014-15.

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

### Killer Sudoku 6x6

#### 4 points

Apply standard Sudoku rules.

The sum of digits in cells inside every cage must equal the total given for the cage at the upper left cell. Digits do not repeat inside a cage.



### Killer Sudoku 9x9

#### 12 points

Apply standard Sudoku rules.

The sum of digits in cells inside every cage must equal the total given for the cage at the upper left cell. Digits do not repeat inside a cage.

These Killer Sudokus were written by Prasanna Seshadri for Sudoku Mahabharat 2014-15.



# Quadruple Sudoku 6x6

#### 6 points

Apply standard Sudoku rules.

Additionally, the digits given at the corner must appear in the 4 adjoining cells. If any digit is given twice, it must appear twice.



### Quadruple Sudoku 9x9

### 11 points

Apply standard Sudoku rules.

Additionally, the digits given at the corner must appear in the 4 adjoining cells. If any digit is given twice, it must appear twice.

These Killer Sudokus were written by Prasanna Seshadri for Sudoku Mahabharat 2015-16.



### Irregular Sudoku 6x6

#### 2 points

Place a digit from 1 to 6 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.



### Irregular Sudoku 9x9

### 11 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.

These Irregular Sudokus were written by Rohan Rao for Sudoku Mahabharat 2014-15.

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