

# LMI-MONTHLY TEST JUN 2010 'SPEED SIXES'

**6/6/2010**

**166 MINUTES  
1666 POINTS**

## PUZZLE BOOKLET

(Sudokus by Tejal Phatak / Rohan Rao)

<http://rohanrao.blogspot.com/>

**WEBPAGE:** <http://logicmastersindia.com/forum/forums/thread-view.asp?tid=55>

**SUBMISSION:** <http://logicmastersindia.com/M201006>

**CLASSIC SUDOKU**

Every row, column and 3x2 box contain the numbers 1 to 6.

**CONSECUTIVE SUDOKU**

If two adjacent numbers are consecutive, there is a bar. If there is no bar, then the two numbers cannot be consecutive.

**DIAGONAL SUDOKU**

The two main diagonals contain the numbers 1 to 6.

**EXTRA REGION SUDOKU**

The six shaded cells must contain the numbers 1 to 6.

**IRREGULAR SUDOKU**

Every row, column and thick-outlined region must contain the numbers 1 to 6.

**ODD-EVEN SUDOKU**

Shaded cells contain even numbers and white cells contain odd numbers.

**EQUAL SUM SUDOKU**

Every 2x2 region where the sum of the diagonally opposite cells is equal is marked 'X'.

**INEQUALITY SUDOKU**

The grid should satisfy '>' (greater than) and '<' (less than) signs.

**NO TOUCH SUDOKU**

Same numbers cannot touch diagonally.

**QUADRUPLE SUDOKU**

The four numbers in a circle have to be placed in the four cells touching the circle in any order.

**SEQUENCE SUDOKU**

The numbers along the shaded lines are different and in arithmetic sequence.

**TRIO SUDOKU**

Circles contain numbers 1 and 2. Boxes contain numbers 3 and 4. White cells contain numbers 5 and 6.

**ANTI KNIGHT SUDOKU**

Same numbers cannot be placed in a (chess) knight's step away.

**EQUAL PRODUCT SUDOKU**

Every 2x2 region where the product of the diagonally opposite cells is equal is marked 'X'.

**EVEN SUDOKU**

Shaded cells contain even numbers.

**MIRROR SUDOKU**

The top-left 3x2 box and the bottom-right 3x2 box are mirror images of each other.

**ODD SUDOKU**

Shaded cells contain odd numbers.

**TRIPLE SUM SUDOKU**

The numbers outside the grid indicate the sum of the 3-digit number, the 2-digit number and the 1-digit number of the row.

**BATTLESHIP SUDOKU**

The given ships need to be placed in the grid such that the numbers outside the grid indicate the number of cells that contain a ship in the corresponding row/column. Ships do not touch each other horizontally, vertically and diagonally. GIVEN NUMBERS ARE NOT PART OF ANY SHIP.

### **CODED SUDOKU**

Cells with the same letter contain the same number. Cells with different letters contain different numbers.

### **DISTANCES SUDOKU**

Fill in the shaded cells with numbers 1 to 6 such that the distance between the numbers 'x' and 'x+1' is always greater than the distance between numbers 'x-1' and 'x'. Distances between numbers are measured from the centres of the cells.

### **KROPKI SUDOKU**

If the absolute difference between two digits in adjacent cells equals 1, then they're separated by a white dot. If the digit in a cell is half of the digit in an adjacent cell, then they're separated by a black dot. The dot between '1' and '2' can have any dot.

### **MINESWEEPER SUDOKU**

If the number in a cell indicates the amount of mines touching it horizontally, vertically and diagonally, the cell is shaded.

### **SKYSCRAPER SUDOKU**

Each number represents the height of the skyscraper in each cell. The digits outside the grid indicate the number of skyscrapers seen from the corresponding direction.

### **KID SUDOKU**

Each digit in the clue outside indicates the sums of one or more continuous numbers in the row from the left to the right, with the additional constraint that no sum can exceed 6.

### **KNIGHT SUDOKU**

One of the six numbers is a (chess) knight. A number is a knight if all its six positions can be connected by knight moves.

### **OUTSIDE CONSECUTIVE SUDOKU**

Numbers outside the grid indicate the number of consecutive pairs in the corresponding row/column.

### **PERFECT CUBE NEIGHBOURS SUDOKU**

A cell is shaded if the cube of the number in the cell is placed in its neighbouring cells in the correct order (clockwise or anticlockwise), not necessarily in a straight line.

### **PERFECT SQUARE SUDOKU**

If two adjacent cells (read from top-to-bottom or left-to-right) is a perfect square, it is marked by a dot.

### **SYMMETRIC UNEQUAL SUDOKU**

$R(m)C(n)$  and  $R(7-m)C(7-n)$  cannot contain the same number for all values of m and n.

### **CROSS SUMDOKU**

Numbers at the right of grid give the sum of the two 3-digit numbers of the corresponding row. Numbers at the bottom of the grid give the sum of the three 2-digit numbers of the corresponding column.

### **DESCRIPTIVE PAIRS SUDOKU**

Each pair of digits 'A' and 'B' on the outside means that at least one of the following are true in the row/column:  
There is a digit A in the Bth cell from the edge; There is a digit B in the Ath cell from the edge.

### **DISTANCE SUDOKU**

The distance between two digits in a row/column is specified. The order of these digits is from left-right or top-bottom.

### **EDGE DIFFERENCE SUDOKU**

The numbers outside the grid indicate the difference between the first and the last number of the corresponding row/column.

### **PALINDROME SUDOKU**

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

### **QUADMAX SUDOKU**

Every arrow in a circle points to the cell with the highest number among the four cells touching the circle. Numbers can repeat in the four cells but the highest number cannot repeat.

# GROUP 1: SIMPLE VARIATIONS

## CLASSIC SUDOKU (10)

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

## CONSECUTIVE SUDOKU (15)

	1				

## DIAGONAL SUDOKU (35)

		3	5		
				4	
	6				
		1	4		

## EXTRA REGION SUDOKU (35)

			3		
	6			1	
5					
					6
	5			2	
		1			

**IRREGULAR SUDOKU (50)**

**ODD-EVEN SUDOKU (10)**

6	4				
					2
5					
		6	3		
					1

1					
	2				
		3			
			4		
				5	
					6

**SURPRISE SUDOKU (45)  
'NON-CONSECUTIVE SUDOKU'**

Every row/column/box contain numbers 1 to 6. No two consecutive numbers are adjacent to each other.

1					2
					3

## GROUP 2: COMMON VARIATIONS

EQUAL SUM SUDOKU (25)

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

INEQUALITY SUDOKU (60)

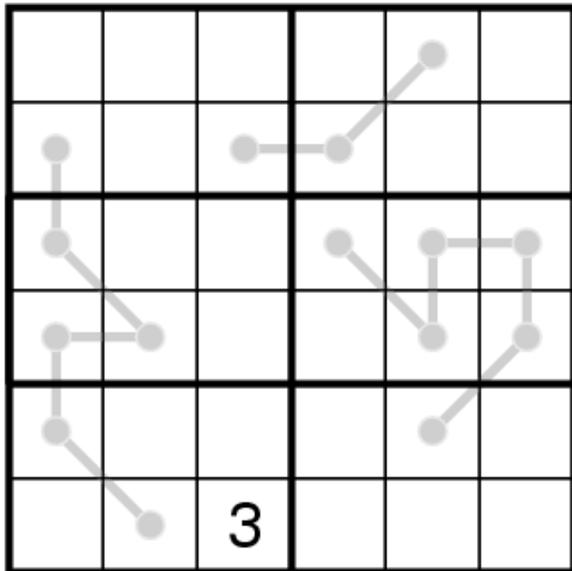

NO TOUCH SUDOKU (20)

4	1				2
					1
6					
5				4	6

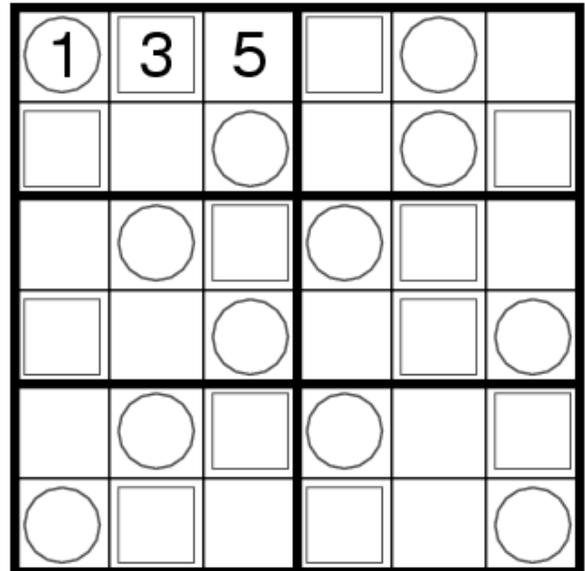
QUADRUPLE SUDOKU (30)

		4456		1256	
			2235		
		3456			
				6	

## SEQUENCE SUDOKU (25)

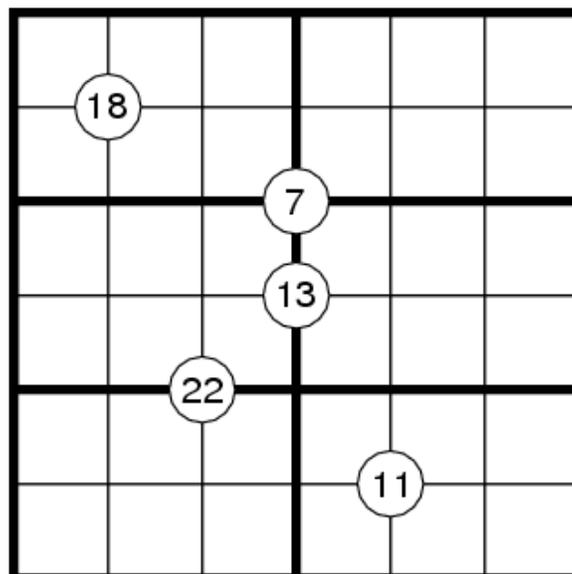


## TRIO SUDOKU (10)



## SURPRISE SUDOKU (30) 'GROUP SUM SUDOKU'

Every row/column/box contain numbers 1 to 6. Number in circle is sum of the four numbers touching the circle.



## GROUP 3: FUN VARIATIONS

**ANTI KNIGHT SUDOKU (15)**

		1	2		
				3	
				4	
		6	5		

**EQUAL PRODUCT SUDOKU (50)**

					6
*	*			1	
	1			*	
4		*			

**EVEN SUDOKU (10)**

3					6
	1			2	
	5			4	
6					3

**MIRROR SUDOKU (25)**

			4	5	
	1	2	3		
				2	
		3			

### ODD SUDOKU (10)

5					2
	1			6	
	3			4	
2					5

### TRIPLE SUM SUDOKU (30)

219		5		4	
606					
264		4		3	
687					

### SURPRISE SUDOKU (60) 'ANTI DIAGONAL SUDOKU'

Every row/column/box contains numbers 1 to 6. The diagonal top-left to bottom-right contains only two numbers. The diagonal top-right to bottom-left also contains only two numbers. The two pairs of numbers can be same or different.

	1				
3	2	1			5
	6				
			3		

# GROUP 4: PUZZLE VARIATIONS

## BATTLESHIP SUDOKU (80)

1 3 1 1 0 4

1						
3						
1			4	5		
1			6	1		
1						
3						

1	3	6	1	2
1	6	2	3	4

NOTE: The given numbers are NOT part of any ship.

## CODED SUDOKU (30)

4		B			C
	1	2	3		
		D			A
			1	6	D
A		C	B		

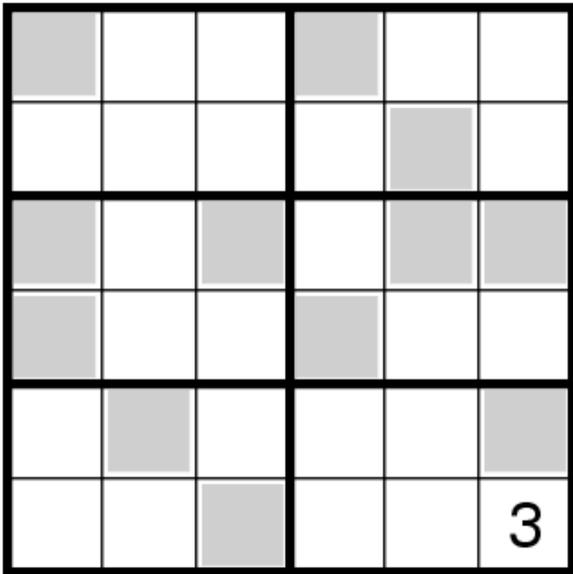
## DISTANCES SUDOKU (35)

6				3	
5					
			3		
				2	

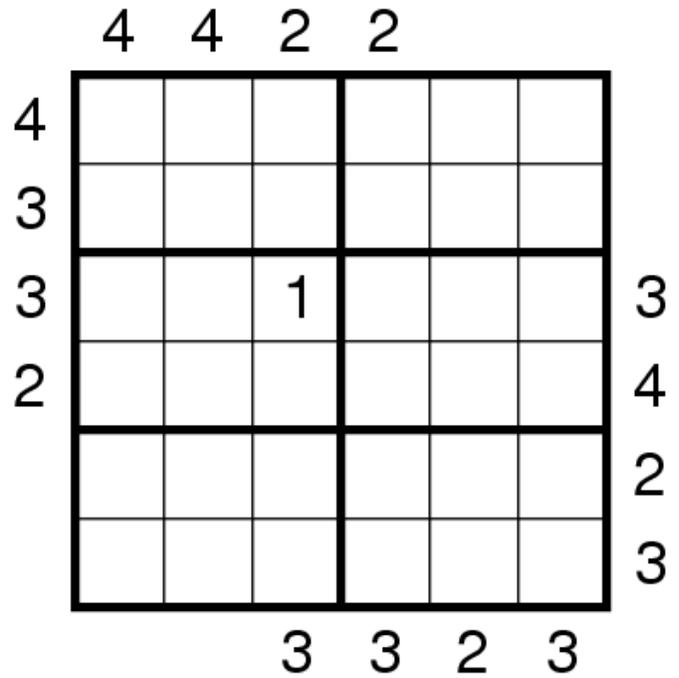
## KROPKI SUDOKU (20)

○					○
			●		
	○			○	○
●					
	○		○		○
			○	○	○

**MINESWEEPER SUDOKU (55)**



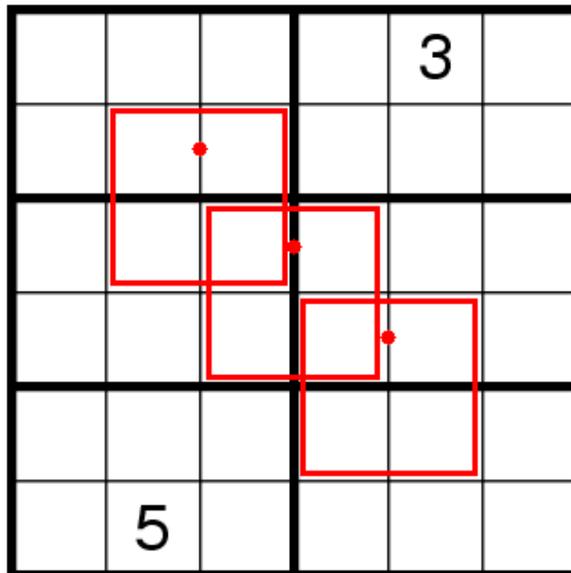
**SKYSCRAPER SUDOKU (40)**



**SURPRISE SUDOKU (20)**

**'MULTIPLICATION TABLE SUDOKU'**

Every row/column/box contains numbers 1 to 6. The two-digit number in the 2<sup>nd</sup> row of the cage is the product of the two single-digit numbers in the 1<sup>st</sup> row of the cage.



## GROUP 5: NEW VARIATIONS

**KID SUDOKU (15)**

6465						
6456						
5646						
43662						
162534						
35463						

**KNIGHT SUDOKU (30)**

	4				
			5		4
		3			
				2	
		1			6
	5		4		

**OUTSIDE CONSECUTIVE  
SUDOKU (40)**

2		0		1	
2		3		1	
	1				5
2					
	3				1
		1		6	

**PERFECT CUBE  
NEIGHBOURS SUDOKU (50)**

4					
					5

**PERFECT SQUARE  
SUDOKU (35)**

		2			
	5				
1					
					4
				1	
			2		

**SYMMETRIC UNEQUAL  
SUDOKU (30)**

	6				
4		1			
	2				
3		6			
	4				
1		5			

**SURPRISE SUDOKU (50)  
'NO THREE IN A ROW SUDOKU'**

Every row/column/box contains numbers 1 to 6. Three consecutive cells along any row, any column and any diagonal CANNOT have all three odd numbers or all three even numbers.

	6			5	
4					
3					
	5			6	

# GROUP 6: MIXED VARIATIONS

**CROSS SUMDOKU (40)**


381  
399  
1065  
1074

156 93 138

**DESCRIPTIVE PAIRS SUDOKU (40)**


24      46 56      12

36  
35  
36  
35  
15

35      36

**DISTANCE SUDOKU (60)**


2-5:2  
1-6:2  
3-5:4  
4-5:2  
1-4:2

2-3:2    5-6:2    3-4:2    2-1:4    1-4:1

**EDGE DIFFERENCE SUDOKU (15)**


4    2                      1    2

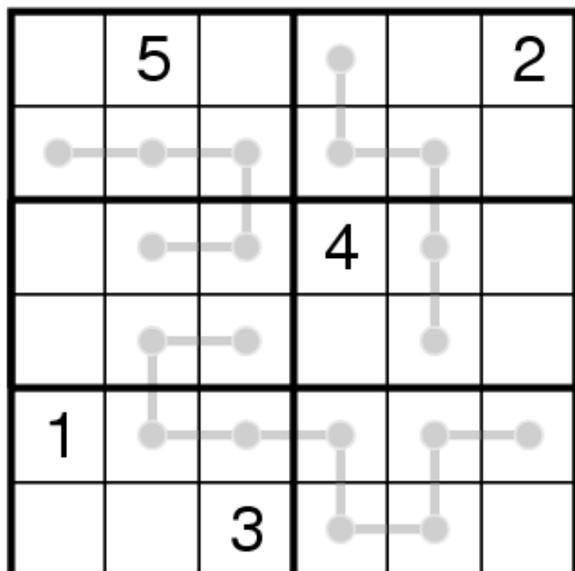
3  
5  
3  
3  
1

5      5      6      3

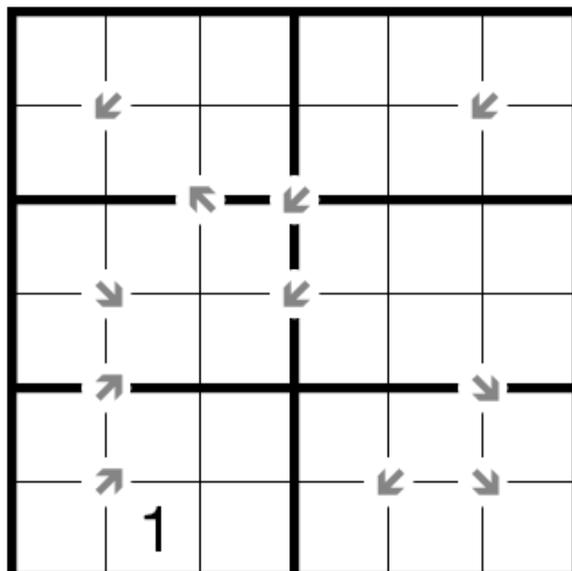
1      3

3      3

## PALINDROME SUDOKU (35)



## QUADMAX SUDOKU (40)



## SURPRISE SUDOKU (20) 'NUMERAL SUDOKU'

Every row/column/box contains numbers 1 to 6. A number can be placed in a cell with a letter only if the English spelling of the number contains that letter.

- 1: ONE
- 2: TWO
- 3: THREE
- 4: FOUR
- 5: FIVE
- 6: SIX

