

# X-Killer

**Background** – The IB for the recently concluded 10<sup>th</sup> World Sudoku Championship in Sofia had an interesting team round called X-Killer. The round was unfortunately cancelled because of technical reasons. Team India was looking forward to this round, and had practiced it using one of the two sets written by Deb. We offered the other set as an unofficial round to the organizers, for fun, after the WSC, and even had some other competitors and captains interested in the idea, but the championship schedule didn't allow for it. So, we decided on what we think is the next best thing, which is to hold it as a contest on LMI.

Online restrictions prevent it from being a team round, so we have made it a longer individual round. Since our schedule is full right now, we will hold this as a weekday-only contest, starting 4<sup>th</sup> November. The test is just to enjoy solving the round that some of us were looking forward to; it won't count for the LMI ratings.

**Rules:** There will be four classic Sudokus\*. Each of them will have some clues, but not enough to solve the Sudoku. Some cells will be marked with letters. Same letter may appear on 2, 3, or 4 different grids. Digits marked with the same letter must be different and sum up to the provided total. Although every separate grid may have many solutions, there's only one solution where all grids are solved and sum up to the clues. Only solved grids that are a part of the overall solution will be scored, each one 600 points. The example from the WSC IB is pasted in the next page, for those who have not seen it earlier.

**\*Rules of Classic Sudoku:** Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3×3 box contains each number exactly once.

**Note:** This test uses instant grading where a solver can submit any individual Sudoku and receive confirmation that the solution is correct or not. Each incorrect submission adds 2 minutes to the actual submission time. IG applies for each of the four grids separately.

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**Contest Duration:** 4<sup>th</sup> to 6<sup>th</sup> November

**Contest Length:** None. After you start the contest, you can submit till end of the contest.

**Bonus:** None

**Penalty:** 2 minutes per mistake

**Submission Link:** <http://logicmastersindia.com/2015/11S/>

**Discussion Thread:** <http://logicmastersindia.com/2015/11S/discuss.asp>

**Online Solving:** Due the complexity of the rules, online solving will not be available for this contest

**Answer keys:** Each Sudoku will have two rows marked by arrows. Enter the digits in the marked rows

Example from WSC Instructions Booklet using 6X6 Sudokus

1		L			
	G		5		
H	3				D
		B		6	
		2	K	F	
				E	4

2		L			
	G		3		
H	1				D
		B		5	
		4	K	F	
				E	6

3		L			
	G		5		
H	4				C
		A		6	
		1	K	F	
				E	2

4		L			
	G		2		
H	3				C
		A		1	
		6	K	F	
				E	5

		Sudokus				
		1	2	3	4	
Letters	A	-	-			9
	B			-	-	4
	C	-	-			3
	D			-	-	4
	E					10
	F					11
	G					12
	H					14
	K					15
	L					18
						Sums

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

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

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

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