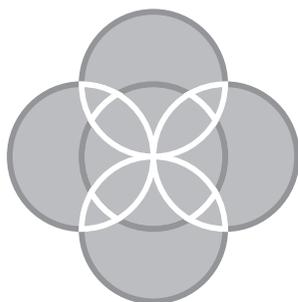


Fivefold Sudoku Test

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16th-17th July, 2011
120 minutes



Duration: 120 minutes

After 70 minutes, the puzzle points will be reduced as shown in the table.

until 70:00	100%
70:01 to 90:00	80%
90:01 to 105:00	65%
105:01 to 120:00	50%

Time Bonus

Players solving all puzzles correctly will get 3 points per saved minute.

Submission

Every puzzle except E4 has some marked rows/columns. Answers can be submitted either in the online solving interface or the LMI flash submission interface.

Notes

- All examples obtained from official WSC booklets. Puzzle types and amounts from each WSC are selected randomly, shouldn't be considered as a "best of" selection.

- Thanks to Gülce Özkütük Yürekli and Salih Alan for testing the puzzles, and thanks to all WSC organizers and LMI.

No	Puzzle	Points	
	A1	Classic Sudoku	19
	A2	Extra Region Sudoku	35
	A3	Outside Sudoku	43
	A4	Pandigital Sudoku	91
	B1	Classic Sudoku	28
	B2	Distance Sudoku	82
	B3	Quadruple Sudoku	54
	B4	Crossnumber Sudoku	32
	B5	Number 5 Still Alive	78
	C1	Classic Sudoku	42
	C2	Numeral Sudoku	84
	C3	Odd Sum Pair	40
	C4	Quad Max	63
	C5	Group Sum	75
	D1	Musketry Sudoku	82
	D2	Killer Sudoku	61
	D3	Triangles	66
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	E4	Just One Cell Sudoku	15
	E5	Double Diagonal Sudoku	94



C1. Classic Sudoku - 42 Points

Fill the grid with digits from 1 to 9, so that each digit occurs exactly once in every row, column and outlined box.

C2. Numeral Sudoku - 84 Points

Follow Classic Sudoku rules. A lettered cell should contain a digit for which the corresponding numeral contains that letter. Example uses numerals in Spanish, the puzzle will contain numerals from different languages.

Numerals
In Spanish

- 1- UNO
- 2- DOS
- 3- TRES
- 4- CUATRO
- 5- CINCO
- 6- SEIS
- 7- SIETE
- 8- OCHO
- 9- NUEVE

N		C	I	A				
R	I	T	U	V			R	
						N	I	
T			U					
N		H		R	R	C	O	
	O	O			C		S	
T				C				
	C	N	E	S	H		S	
		S	I	T				N

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

C3. Odd Sum Pair - 40 Points

Follow Classic Sudoku rules. The sum of digits in an outlined region should be an odd number.

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

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

C4. Quad Max - 63 Points

Follow Classic Sudoku rules. Arrows point to the biggest digit in the four neighbouring cells. Digits may repeat around an arrow.

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

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

C5. Group Sum - 75 Points

Follow Classic Sudoku rules. Clues inside the grid represent the sum of the digits in the four neighbouring cells. Digits may repeat within a sum.

	23			15	18			29
		25		22	30			13
			24			25		
	11	17		30	26		14	17
	23	25		18	15		12	21
			21			20		
	11			23	19			29
	25			18	19			16

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

D1. Musketry Sudoku - 82 Points

Follow Classic Sudoku Rules. There are 5 overlapping standard sudoku grids which each obey standard sudoku rules.

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

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

D2. Killer Sudoku - 61 Points

Follow Classic Sudoku rules. Number at the corner of an outlined region represents the sum of all digits in the corresponding region. No digit may be repeated within a sum.

16	4			7	17			15		
	7				30			3		10
11	17	20			8					
			4			10		10	11	
12				14	7				11	
3					10			14	17	
7	9	21	16			8				
							14		3	
16								10		

16	4	3	1	7	2	8	9	15	6	4	5
9	5	2	4	30	6	7	8	3	1	3	
11	17	20			8						
5	9	6		4	3	1	8	10	2	7	4
12	8	4	3	14	9	7	2	1	5	6	
3	2	1	7	5	10	4	6	3	8	9	
7	9	21	16								
4	7	8	6	2	3	14	5	9	1		
16	6	9	8	5	4	10	7	3	2		

D3. Triangles - 66 Points

Follow Classic Sudoku rules. Sum of digits in vertices of triangles is same for every triangle. Digits in vertices of a triangle may repeat.

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

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

E1. Classic Sudoku - 28 Points

Fill the grid with digits from 1 to 9, so that each digit occurs exactly once in every row, column and outlined box.

E2. Odd-Even-Big-Small Sudoku (8x8 grid) - 49 Points

Follow Classic Sudoku Rules. An indicator symbol on the outside says that the first two numbers along that row or column are either odd/奇 (1,3,5,7), even/偶 (2,4,6,8), big/大 (5,6,7,8), or small/小 (1,2,3,4).

1							
	2						
		3					
	6		4				
				5		4	
					6		
							7
							8

大 偶 小
big even small

小 奇
small odd

奇 偶 奇 偶 奇 偶 奇 偶

奇 偶 奇 偶 奇 偶 奇 偶

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

大 偶 小
big even small

小 奇
small odd

奇 偶 奇 偶 奇 偶 奇 偶

奇 偶 奇 偶 奇 偶 奇 偶

E3. Thermometer Sudoku - 73 Points

Follow Classic Sudoku Rules. The digits in each "thermometer"-shaped region must be strictly increasing from the circular bulb to the end.

				5	4
					6
			2		
		1			
	9				
7	8				
					3

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

E4. Just One Cell Sudoku - 15 Points

Follow Classic Sudoku Rules. This puzzle has multiple solutions for the entire grid, but there is at least one empty cell that will contain the same digit for all solutions. You are to locate and clearly identify just one digit that can be placed into the grid with absolute certainty.

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

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

E5. Double Diagonal Sudoku - 94 Points

Follow Classic Sudoku Rules. No digit can repeat in any of the four eight-cell diagonals.

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

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