LMI Sudoku Test

18th - 20th June

by Čedomir Milanović

About the test: This is a selection of puzzles from Serbian Sudoku Championship, which was held as qualifying for the upcoming WSC in Slovakia. It consists of 16 puzzles and its duration is 120 minutes. The list of Sudoku types and points distribution are shown below.The distribution of points is based on the times needed by the test solver and participants of Serbian Sudoku Championship but your personal expirience and preference may differ. The difficulty of the Sudokus in the IB is not representative for the difficulty of the Sudokus in the real test.

1-4	Classic Sudoku	10+15+20+25
5	Diamonds Are Forever	25
6	Casino Royale	30
7	12 Angry Men	30
8	Kakushi-toride no san-akunin	35
9	The Lord of the Rings: The Fellowship of the Ring	40
10	Octopussy	45

11	Broken Arrow	45
12	Il buono, il bruto, il cattivo	50
13	8 1/2	50
14	Licence to Kill	55
15	Goldfinger	60
16	Heat	65
TOTAL		**600**

Solution codes: Each Sudoku will be marked with two lettered arrows (two rows, two columns or a row and a column). You need to submit the digits in marked rows/columns, in order, including the givens. In puzzle 5 (Diamonds Are Forever) use "D" for the diamonds. In puzzle 13 (8 1/2), for the cells with fractions, type the numerator first.

Instant Grading: This test uses Instant Grading where a solver can submit any individual puzzle once finished and receive confirmation on whether it's correct or not. The first, second, third and fourth incorrect submission reduces the potential score to 90%, 70%, 40% and 0% respectively (and remains 0% after this).

Bonus: Players submitting all Sudokus correct will get **five** points per minute saved as bonus.

Many thanks to Prasanna Seshadri for test solving, suggestions and help and to Deb Mohanty and LMI for the given opportunity to present this test online.

1-4. Classic Sudoku — 10+15+20+25 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 3x3 region.

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

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

5. Diamonds Are Forever (1971) — 25 points

Place a digit from 1 to 7 and some diamonds (one per cell) in each empty cell so that each row, column and outlined region contains all digits exactly once and exactly two diamonds. Cells with diamonds can't touch each other, not even diagonally.

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

4	2	3	◆	7	◆	1	6	5
5	◆	6	1	2	4	3	◆	7
3	6	7	◆	5	◆	2	1	4
7	◆	1	5	4	3	6	2	◆
2	3	5	6	◆	7	◆	4	1
1	4	◆	2	3	6	5	7	◆
◆	5	4	7	6	1	◆	3	2
6	1	◆	4	◆	2	7	5	3
◆	7	2	3	1	5	4	◆	6

6. Casino Royale (2006) 30 points

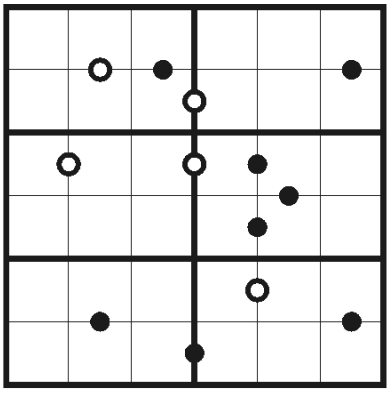
Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and outlined 3x3 region. The shaded columns are like the rolls on a slot machine. The numbers they contain have to be in exactly the same order, taking into account that they wrap around the grid from top to bottom.

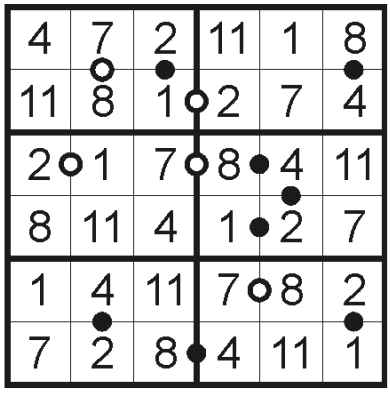
					6	9		
9								
2		1						5
		2	6					3
			7		2			
5					4	6		
3						7		9
								6
		6	4					

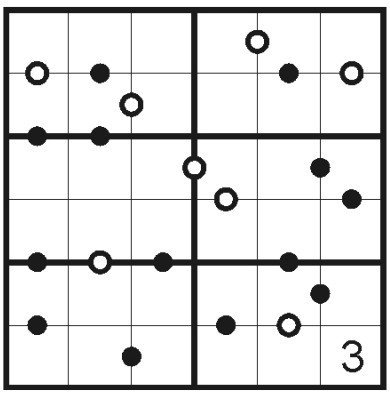
4	3	7	5	1	6	9	8	2
9	8	5	3	2	7	1	6	4
2	6	1	8	4	9	3	7	5
8	7	2	6	5	1	4	9	3
6	9	4	7	3	2	5	1	8
5	1	3	9	8	4	6	2	7
3	2	8	1	6	5	7	4	9
1	4	9	2	7	3	8	5	6
7	5	6	4	9	8	2	3	1

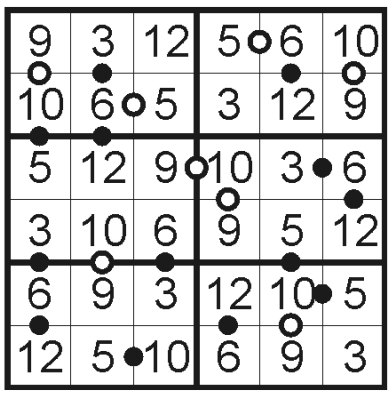
7. 12 Angry Men (1957) 30 points

Numbers from 1 to 12 split into two groups of six numbers and place them in two 6x6 grids. In each row, column and outlined 2x3 region numbers can not be repeated. Adjacent cells containing consecutive numbers are marked with a white dot. Adjacent cells containing numbers whose ratio is 2 are marked with black dot. Adjacent cells containing 1 and 2 may be marked by a dot of either colour. Adjacent cells with no marking must not contain numbers that are either consecutive or whose ratio is 2.



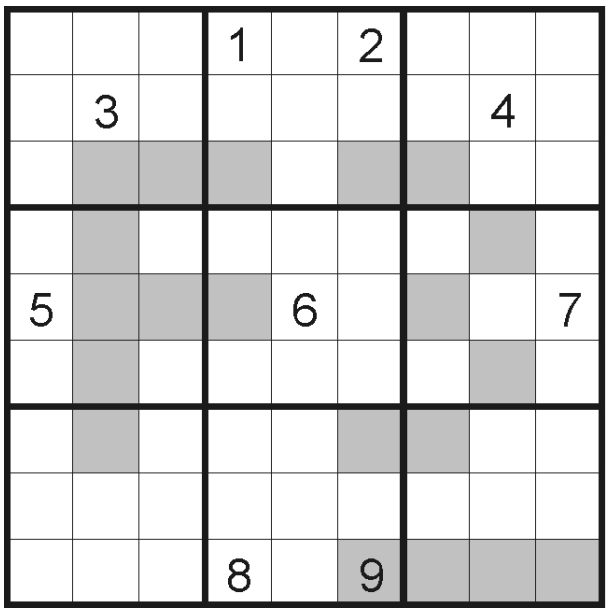


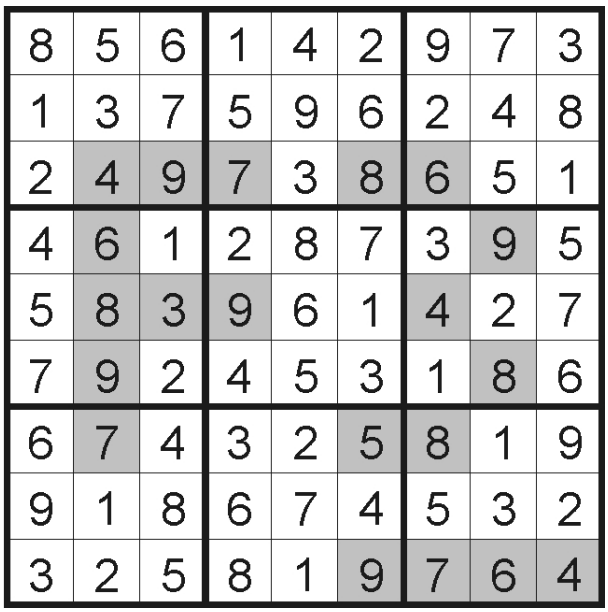




8. Kakushi-toride no san-akunin (1958) 35 points
(AKA The Hidden Fortress)

Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and outlined 3x3 region. The digit in each grey cell is larger than any of the digits in its horizontally or vertically adjacent white cells.

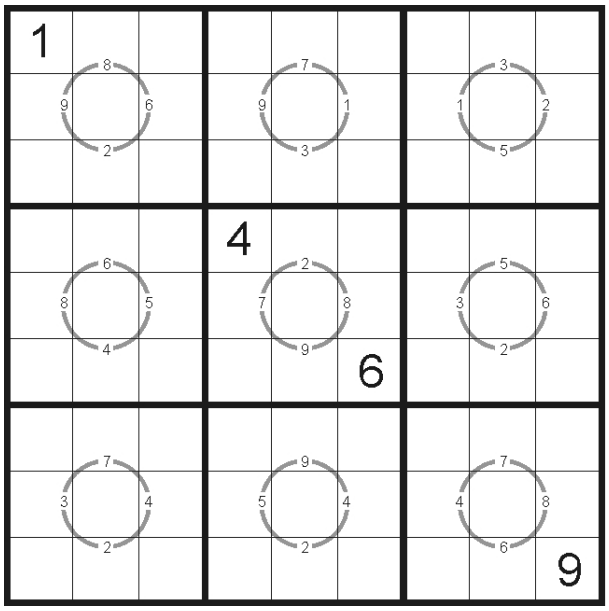


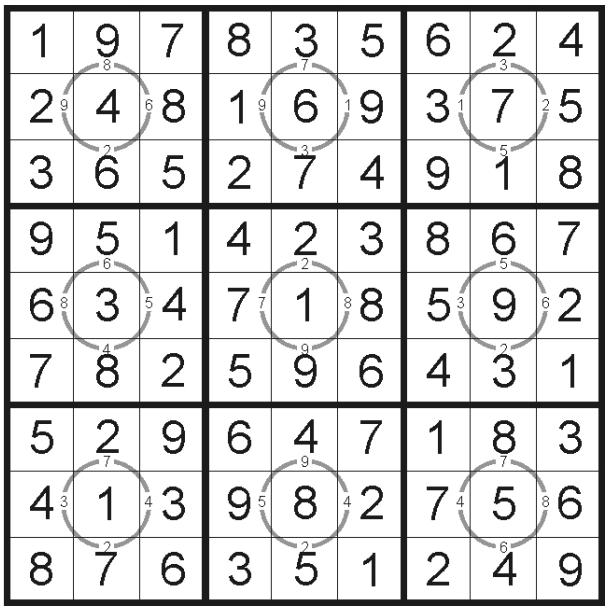


8	5	6	1	4	2	9	7	3
1	3	7	5	9	6	2	4	8
2	4	9	7	3	8	6	5	1
4	6	1	2	8	7	3	9	5
5	8	3	9	6	1	4	2	7
7	9	2	4	5	3	1	8	6
6	7	4	3	2	5	8	1	9
9	1	8	6	7	4	5	3	2
3	2	5	8	1	9	7	6	4

9. The Lord of the Rings: The Fellowship of the Ring (2001) 40 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 3x3 region. The digits on the circles have to be placed in the same order in the four cells that are touched by the circle. The circles may have to be turned in the correct position.

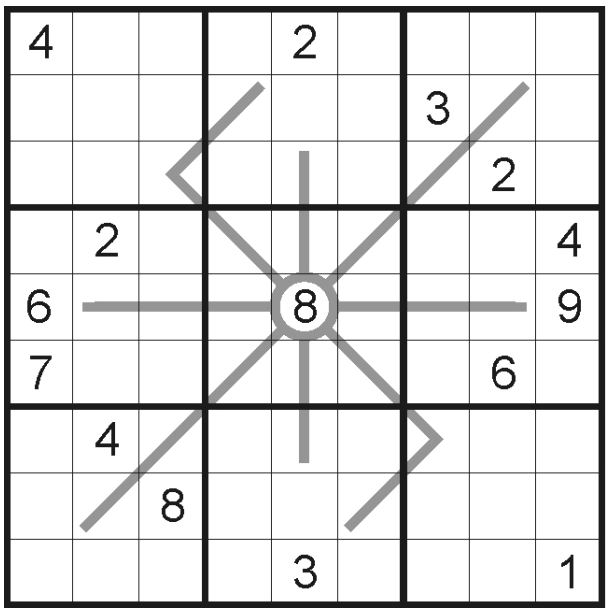


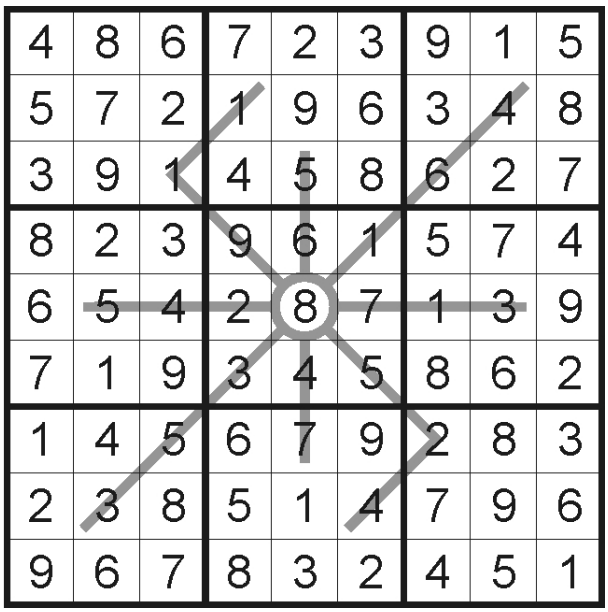


1	9	7	8	3	5	6	2	4
2	4	8	1	6	9	3	7	5
3	6	5	2	7	4	9	1	8
9	5	1	4	2	3	8	6	7
6	3	4	7	1	8	5	9	2
7	8	2	5	9	6	4	3	1
5	2	9	6	4	7	1	8	3
4	1	3	9	8	2	7	5	6
8	7	6	3	5	1	2	4	9

10. Octopussy (1983) — 45 points

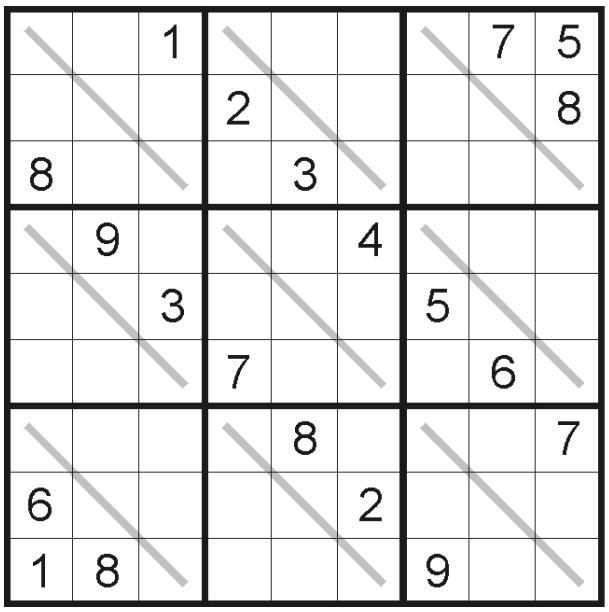
Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and outlined 3x3 region. The sums of the digits on all eight tentacles have to be the same. Digits may repeat on the single tentacle.

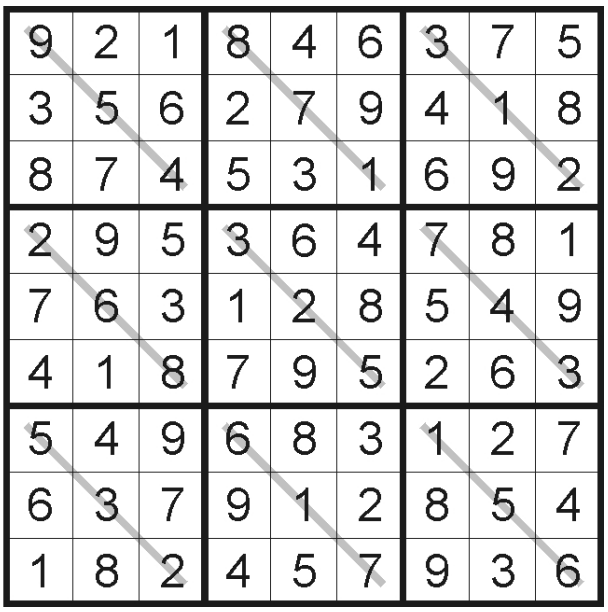




11. Broken Arrow (1996) — 45 points

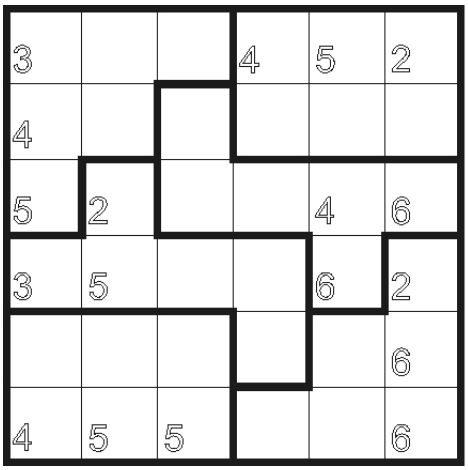
Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and outlined 3x3 region. The grey lines in the grid are incomplete arrows. The digit on one end of the line is the sum of the other digits on the same line. Digits may repeat on a line.

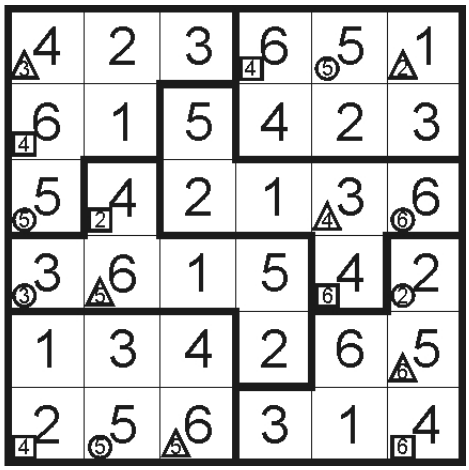




12. Il buono, il brutto, il cattivo (1966) — 50 points
(AKA The Good, the Bad and the Ugly)

Place a digit from 1 to 8 (1 to 6 in example) in each cell so that each digit appears exactly once in each row, column and outlined region. Some numbers are given in exactly three cells of each region. Within one region, one of these numbers is correct (the good one), one of these numbers differs from the correct value by exactly 1 (the bad one) and 3rd number differs from the correct value by exactly 2 (the ugly one).
(*Note:* puzzle booklet will contain one extra, completely empty grid)





13. 8½ (1963) — 50 points

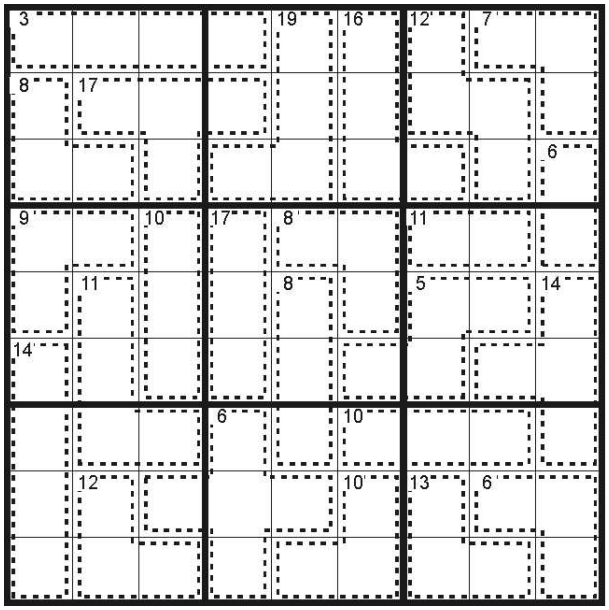
Place a digit from 0 to 9 in each cell so that each digit appears exactly once in each row, column and outlined 3x3 region. Every row/column/region contains exactly one cell with a slesh and two digits. They form a fraction whose value is exactly 0.5. Not all cells with fractions are marked and given numbers can not be converted to fractions.

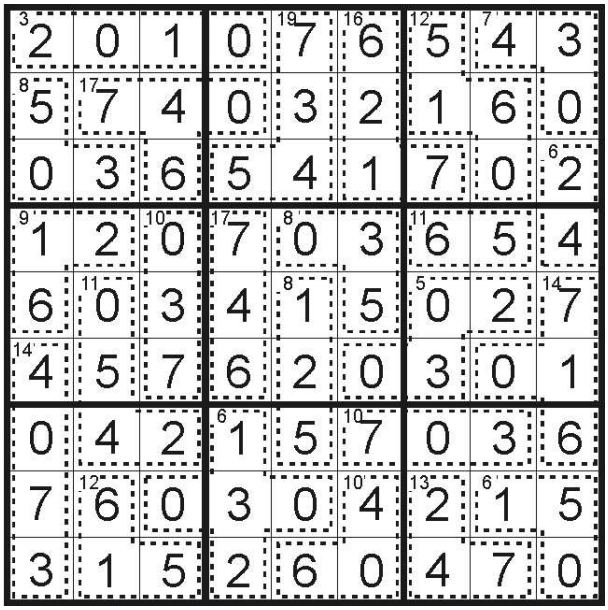
4				3				/
0	2						5	6
		9				0		
	1		8	/	7		6	
7		2				1		3
9			/		2			5
			9		0			
/				7				9

4	5	7	0	3	6	8	9	1/2
0	2	1	7	9	4/8	3	5	6
8	3/6	9	2	5	1	0	7	4
6	9	4/8	1	0	3	5	2	7
3	1	5	8	2/4	7	9	6	0
7	0	2	5	6	9	1	4/8	3
9	4	0	3/6	8	2	7	1	5
5	7	6	9	1	0	2/4	3	8
1/2	8	3	4	7	5	6	0	9

14. Licence to Kill (1989) — 55 points

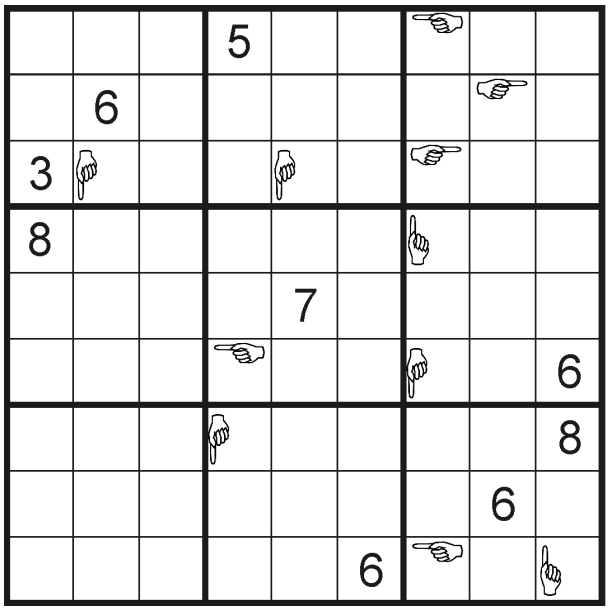
Place a digit from 0 to 7 in each empty cell so that each digit 1-7 appears exactly once and 0 exactly twice in each row, column and outlined 3x3 region. The small numbers in the dotted outlined areas are the sum of the digits in that area. A dotted outlined area can contain digits 1-7 at most once and 0 at most twice.

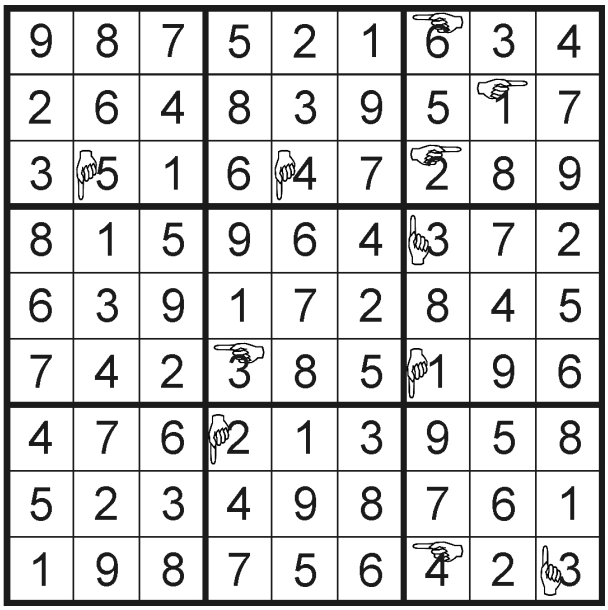




15. Goldfinger (1964) — 60 points

Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and outlined 3x3 region. The numbers in the grid represent buildings of different heights with so many floors as the number indicates. The numbers in the cells with the pointing finger indicate how many buildings may be seen watching from this place into direction of the finger (a building can only be seen if the other buildings in front of it are smaller).





16. Heat (1995) 65 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 3x3 region. The digits in each "thermometer" shaped region must be strictly increasing from the circular "bulb" to the other end.