September Sudoku Contest

@ LMI

by Riad Khanmagomedov
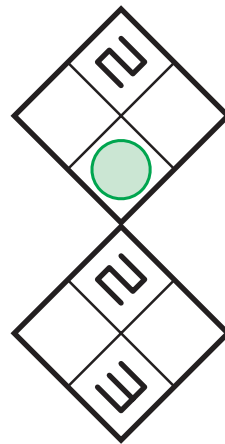
INSTRUCTION BOOKLET

1. LOG SUDOKU	58 pt
2. LOG SUDOKU	68 pt
3. SUDOKU WITH MIXED HINTS	75 pt
4. SUDOKU-LOSHARIKI	81 pt
5. SUDOKU ON PINS	176 pt
6. SUDOKU 765432100	100+28 pt
7. SSC SUDOKU	164 pt
TOTAL	750 pt

TIME
75 minutes

BONUS
10 points per minute saved if all puzzles are solved correctly

ANSWER KEY
Digits in the marked rows (from left to right) or columns (from top to bottom),
as indicated by arrows

Thanks to Prasanna Seshadri and Seungjae Kwak

1-2. LOG SUDOKU
58 + 68 pt

Apply classic sudoku rules. Additionally, at least one of the rules is met for the digits on each color strip: they are all a) of the same parity, b) arranged strictly in ascending or descending order. The digits on the strip may be repeated.
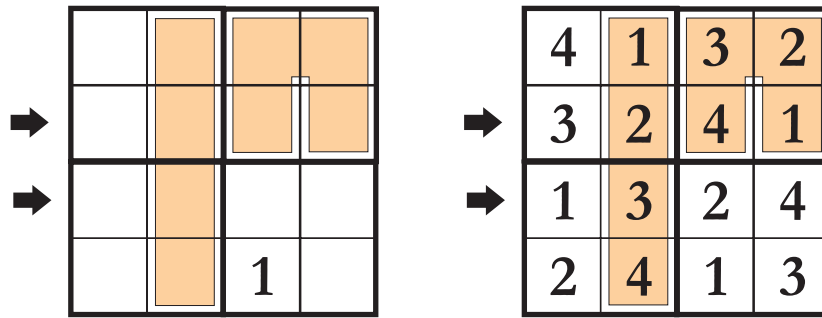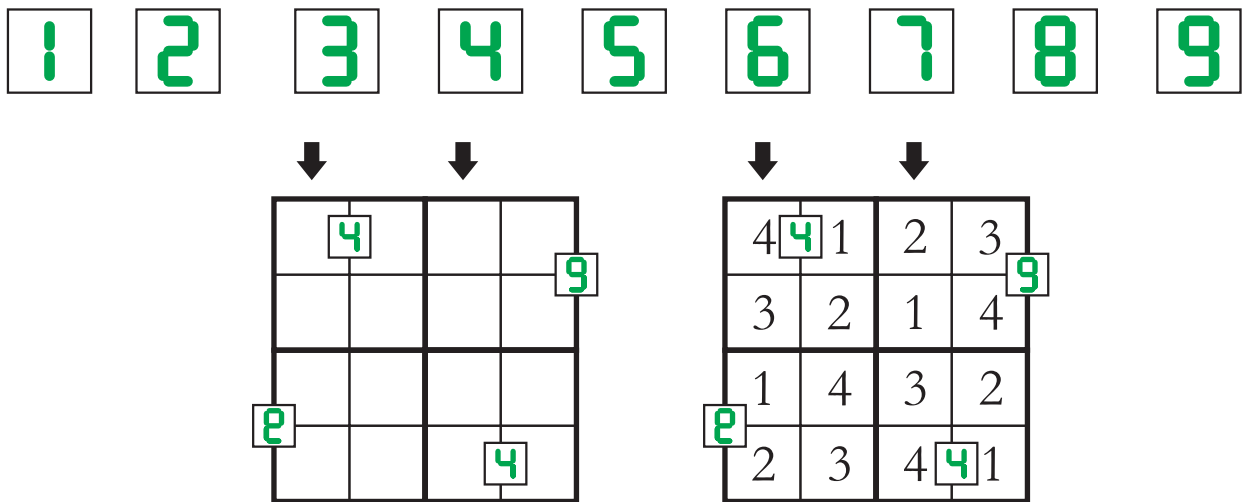
Answer: 3241, 1324

3. SUDOKU WITH MIXED HINTS
75 pt

Apply classic sudoku rules. A symbol is suggested between the cells, formed by superimposing digits from these cells on each other. The digit 1 can be superimposed on another digit from either side left or right.
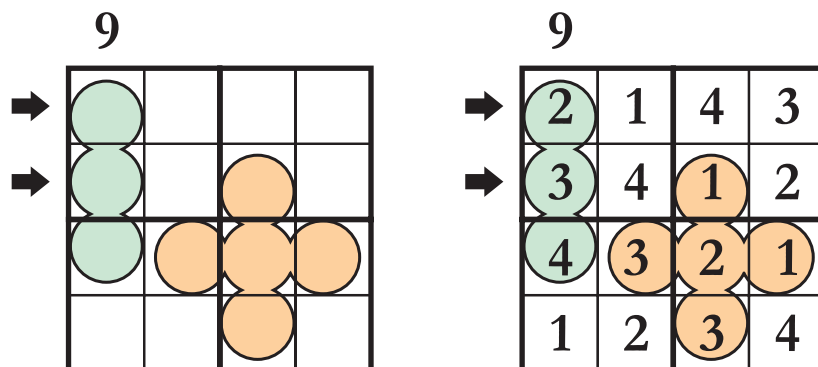
Answer: 4312, 2134

4. SUDOKU-LOSHARIKI
81 pt

Apply classic sudoku rules. In each marked horizontal or vertical triple, the central digit is the arithmetic mean of the two others. Not all triples with this property are marked in the grid. The sums of all the digits in the colored circles of the corresponding row or column are indicated outside the grid.
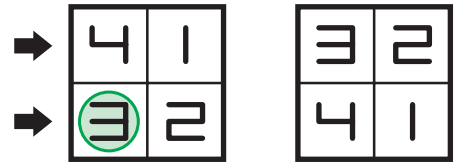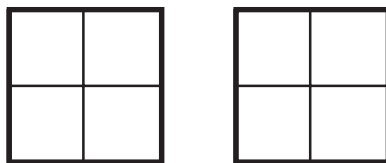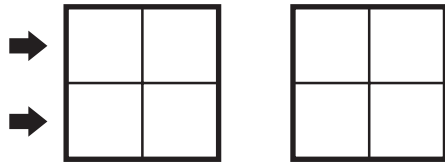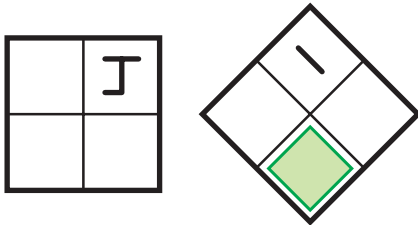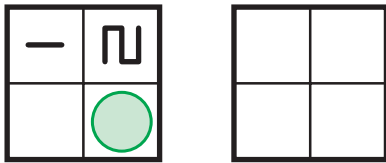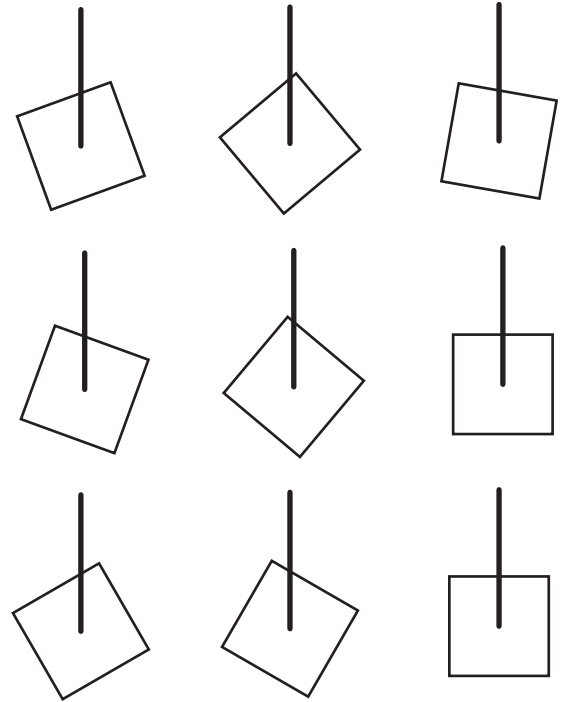
Answer: 2143, 3412

5. SUDOKU ON PINS

176 pt

All 3x3 blocks rotate around pins stuck in their centers. The digits have the given outline. Only digits 1, 2, 3 can get into the cells with circles, 4, 5, 6 – with squares, and 7, 8, 9 – with octagons. Return all or some of the blocks to their original positions and solve the sudoku by classic rules.

Digits

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

Answer: 4132, 3241

6. SUDOKU 765432100

Solve each grid using classic sudoku rules. Exactly 7 digits of the Nth row of the first sudoku coincide with the digits of the Nth row of the second sudoku: they are in the same positions. You have to determine the value of N. The same rule for 6, 5, 4, 3, 2, 1, 0 and 0 digits is valid for the other rows.

If any one grid is solved correctly, it will score 100 points. If both are solve correctly, they will score 128 points.

The example is a 4x4 Sudoku 2100. Exactly two digits of the 1th row of the first grid coincide with two digits in the same positions of the 1th row of the second grid. Exactly one digit of the 2th row of the first grid coincide with one digit in the same position of the 2th row of the second grid. No digit in the 3th and 4th rows of the first grid coincide with any digit in the same positions of the 3th and 4th rows of the second grid.

Answer: 4132, 2413

Answer: 4231, 3124

7. SSC SUDOKU

Solve a Sudoku with Symmetrical Cells using classic rules. Some cells are marked with identical symbols forming symmetrical shapes with a center or axis of symmetry. For each shape, the sum or difference in a pair of any cells symmetrical with respect to the center or axis is equal to the digit in the central cell of the shape.

Answer: 543261, 452613