



2  
0  
1  
9

## INSTRUCTION BOOKLET

1. GYROSUDOKU	20 pt
2. RUG SUDOKU	50 pt
3. TILED SUDOKU	45 pt
4. SUDOKU WITH ADDERS	55 pt
5. SUDOKU 55555	90+90 pt
6. SUDOKU WITH SIGNS	80 pt
7. SUDOKU WITH NEIGHBORS	200 pt
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TOTAL	630 pt

### TIME

70 minutes

### BONUS

9 points per minute saved if all puzzles are solved correctly

### ANSWER KEY

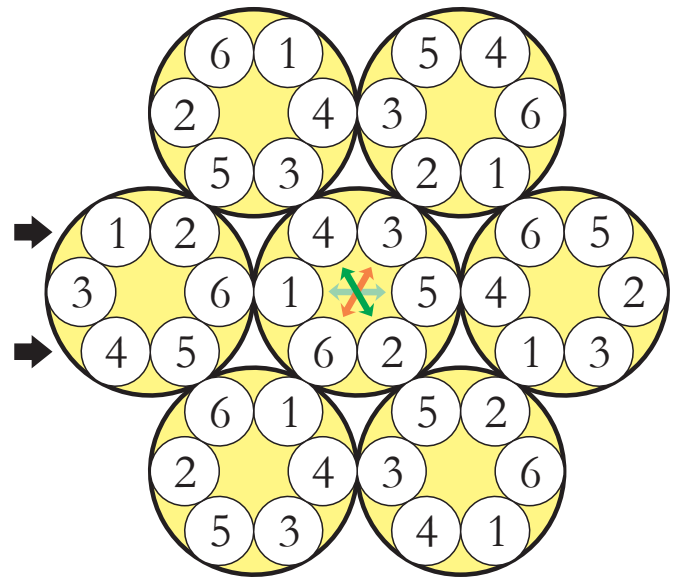
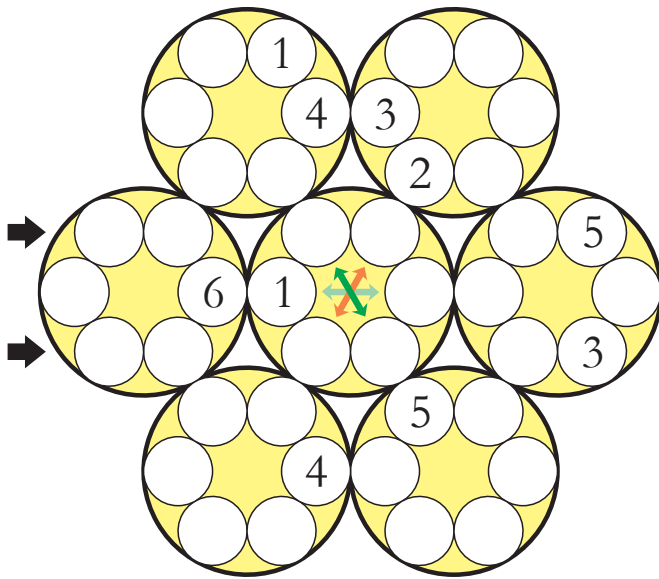
Digits and letters in the marked rows (from left to right), as indicated by arrows

Thanks to Rakesh Rai and Seungjae Kwak

## 1. GYROSUDOKU

20 pt

Fill the white circles with digits from 1 to 6. Digits must be different in each of the three directions, and within each yellow circle.



Answer: 124365, 456213

## 2. RUG SUDOKU

50 pt

Fill the grid with digits from 0 to 9. Digits must be different in rows, columns, outlined areas and in the nine yellow (shaded) cells.

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

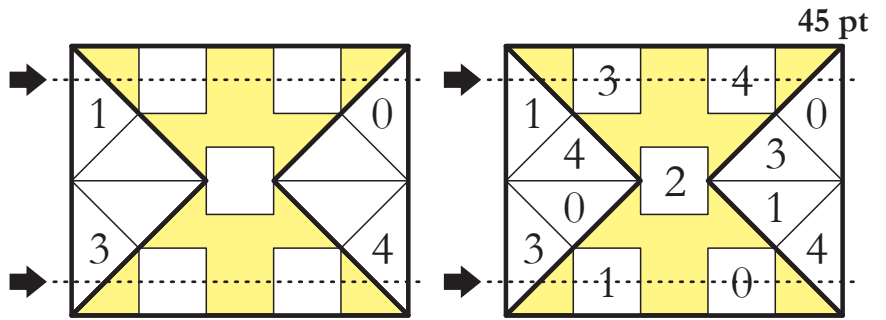
0	1	5	2	6	4	3	7	8			
3	6	7	0	8	5	9	4	2			
2	8	9	1	7	3	6	5	0			
5	0	2				4	8	6			
4	7	1							0	3	5
8	3	6									
7	9	8	5	0	2	1	6	3			
6	2	3	4	1	8	5	0	9			
1	5	0	7	3	6	8	2	4			

Answer: 015264378, 150736824

### 3. TILED SUDOKU

Fill white cells with digits from 0 to 9. Digits must be different in cells along any imaginary horizontal and vertical line, in each marked triangle (marked with bold lines) and each yellow area.

The example uses digits from 0 to 4.

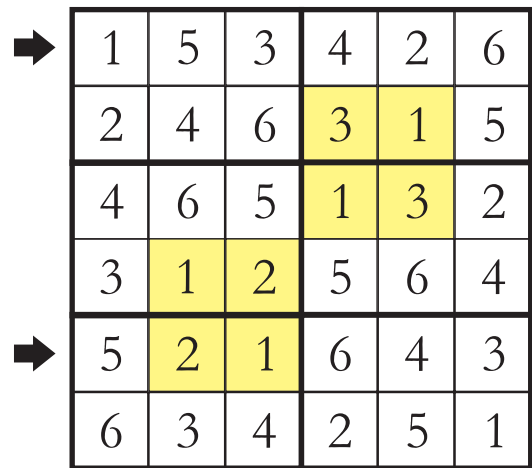
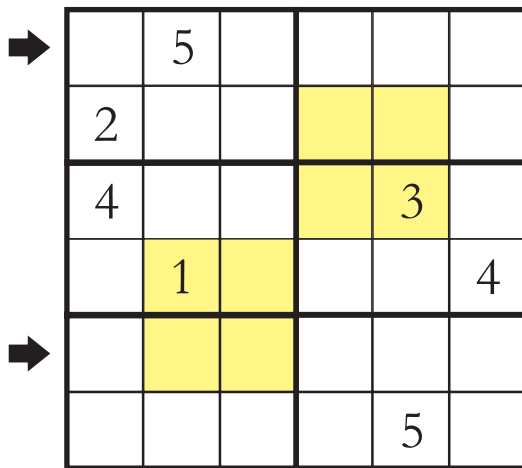


45 pt  
Answer: 1340, 3104

### 4. SUDOKU WITH ADDERS

Solve sudoku by classic sudoku rules. For each square-shaped yellow (shaded) region, the sum of digits in each row and each column is the same. Sums can be different for different regions.

55 pt



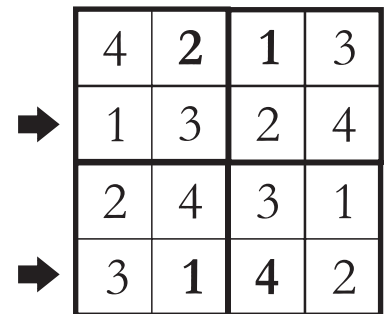
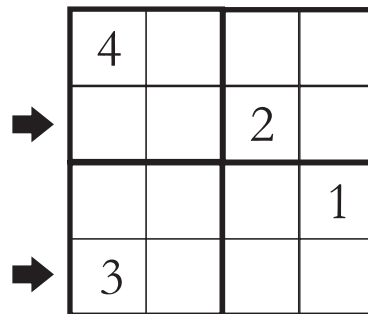
Answer: 153426, 521643

### 5. SUDOKU 55555

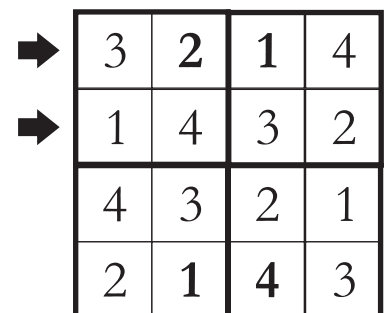
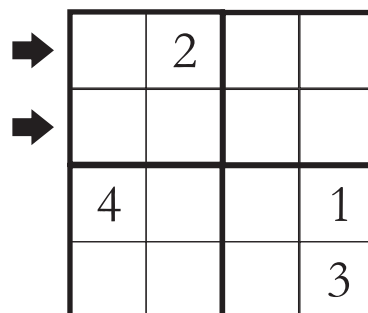
Solve both sudokus by classic rules. Exactly five digits in five rows of the first grid coincide with five digits in the same positions in five corresponding rows of the second grid.

90+90 pt

In the example, exactly two digits in two rows of the first grid coincide with two digits in the same positions in two corresponding rows of the second grid. The example uses a 4 x 4 grid.



Answer: 1324, 3142



Answer: 3214, 1432

### 6. SUDOKU WITH SIGNS

80 pt

Solve sudoku by classic sudoku rules. In some rows there are some arithmetic signs. These are applied between two adjacent digits from left to right and from top to bottom. The result of any arithmetic operation must be a positive integer from 1 to 9. In each row and column, the values of all expressions, and any single digits (not involved in any arithmetic operation) must be different.

The example uses numbers 1 to 4 in a 4 x 4 grid and arithmetic operations must result in a positive integer from 1 to 4.

2			
	⊗	−	/
		/	
/	−	⊗	3

2	1	3	4
3	4	2	1
4	3	1	2
1	2	4	3

2, 1, 3, 4  
3, 2, 1  
4, 3, 2  
1, 2, 4, 3

2	4	1	4
3	1	4	2
4			3

Answer: 3421, 4312

### 7. SUDOKU WITH NEIGHBORS

200 pt

Fill the grid with the letters A, B, C, D, E, F, G, H and I – following classic sudoku rules. The letter(s) given outside the grid must appear near at least one of its alphabetic neighbors in the corresponding row or column. For example, if C appears outside the grid in a row, the letter B, or the letter D, or B and D together must appear next to C in that row. Not all letters with this property are given outside the grid.

The example uses letters A, B, C and D in a 4 x 4 grid.

	A		D
		A	
	C		

C  
B

	A		D
D	A	B	C
C	B	A	D
B	C	D	A
A	D	C	B

C  
B

Answer: DABC, CBAD