World Puzzle Federation

World Class Puzzles
from The Netherlands

WCPN Dutch Puzzle Championships 2015

Tuesday March 24th 20.00-22.00

Sixteen puzzles: try to score as many points as you can.
All puzzles have a solution code, and next to all puzzles the amount of points is mentioned. If you leave a code field empty, no points are rewarded. If the code is wrong, you'll get 30 penalty points.

This is an open championship, so everyone is invited to take part. For the official ranking (and a place in the team for the WPC) you have to be WCPN member and have the Dutch nationality. Besides, you have to be available October 11th to 18th 2015. Finally all team members have to pay the costs themselves.

It is not allowed to work in teams or use any devices.
Results will be publised on Friday March 27th.

	Puzzle	Points
1	Number place	80
2	Battleships - lighthouses	90
3	No four in a row	140
4	Japanese square	274
5	Number grid	41
6	Mathrax	220
7	Skyscrapers plus	100
8	Yajillin	105
9	Neighbours	180
10	Mochikoro	60
11	Renban	145
12	Heyawake	75
13	Easy as ABCDEF	165
14	Tapa	110
15	Tents	125
16	Loopy	105
		2015

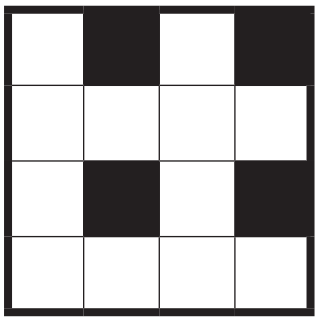
There is always a possibility that the results form doesn't work properly. In that case, make a screenshot and send it to wcpn@ziggo.nl

Results will be publised on Friday March 27th. Protest about these results is not possible, but of course you can ask questions.

1 Number place

Place the given numbers in the grid, horizontally or vertically.

Example



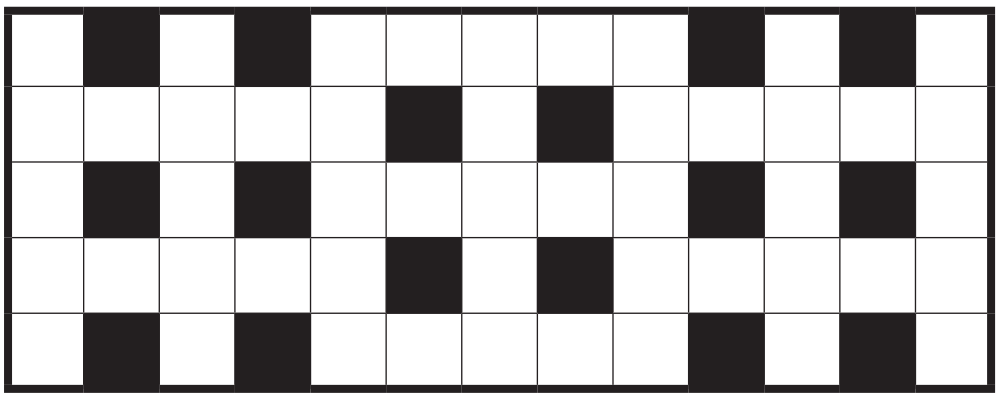
2232
2321
2345
5432

→

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

12653
25316
28497
28755
32115
48569
49376
53177
63942
64398
66524
83516
86729
94122

80 points

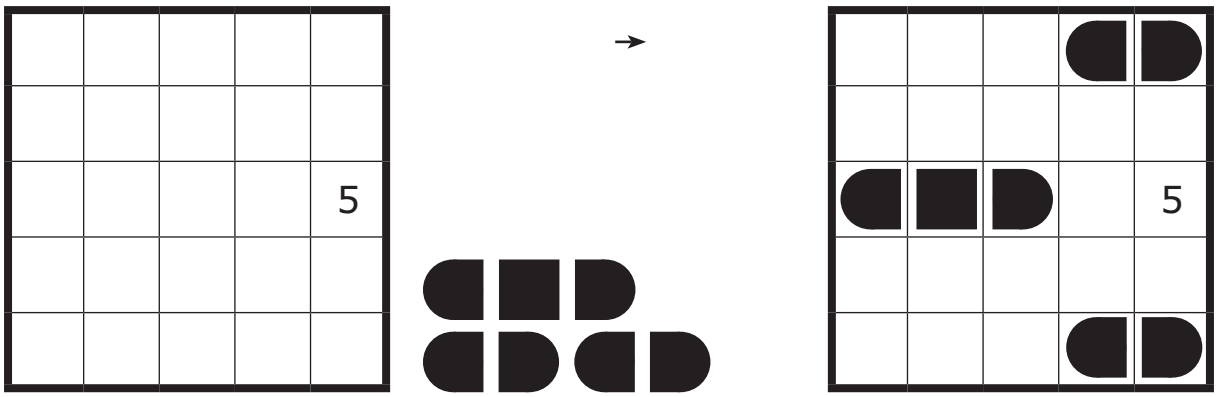


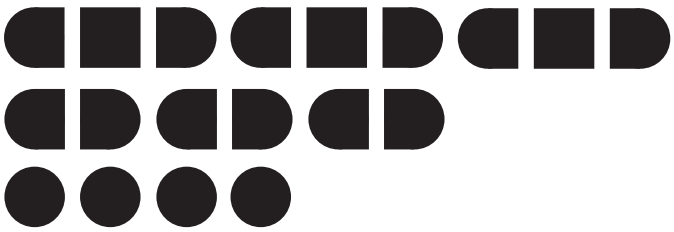
Code: what are all figures on row 3?

2 Battleships - lighthouses

A cell with a number is a lighthouse, and it indicates the total number of ship segments in the same row and column of the lighthouse. Ships do not touch each other or the lighthouses, not even diagonally.

Example





	A	B	C	D	E	F	G	H	I	J
1					6					
2					3					
3	2									
4		4								4
5							3	1		
6	4									
7										
8										
9						3				
10		2				1				

90 points

Code: give the four coordinates of the four submarines.

3 No four in a row

Fill in the grid with ‘X’ or ‘O’. Four consecutive ‘X’s and ‘O’s do not appear horizontally, vertically or diagonally.

Example

	O		O		O	O
					O	
X	O	X		X	X	
					X	
		X	X	X		
X					O	O
O			O	O		X

→

X	O	O	O	X	O	O
O	X	O	X	O	O	O
X	O	X	O	X	X	O
X	O	X	O	X	X	X
O	O	X	X	X	O	O
X	X	O	X	O	O	O
O	X	O	O	O	X	X

		↓				↓			
	O	O	O			X			O
	X	O				X			
								O	O
O									O
		X	X	O					
X		O			O		X		X
						O			O
	X							X	
X	X		X				O		O
	O	O	O		O		O		O

140 points

Code: the symbols in column 4 and column 8.

4 Japanese square

Place digits 1–9 into the grid so that no digit is repeated within a row or column. Numbers outside the grid indicate the sums of contiguous blocks of digits in that row or column. Blocks have to be separated by at least one empty cell.

Example

		12	8	7	15	6	19
		10	6	14	7	16	2
1	11						
12	22						
14	4						
5	15						
6	16						
13	3						

→

		12	8	7	15	6	19
		10	6	14	7	16	2
1	11	1		7	4		
12	22	8	4		9	6	7
14	4	3	1	8	2		4
5	15		3	2		7	8
6	16	6		1	7	8	
13	3	4	6	3		1	2

274 points

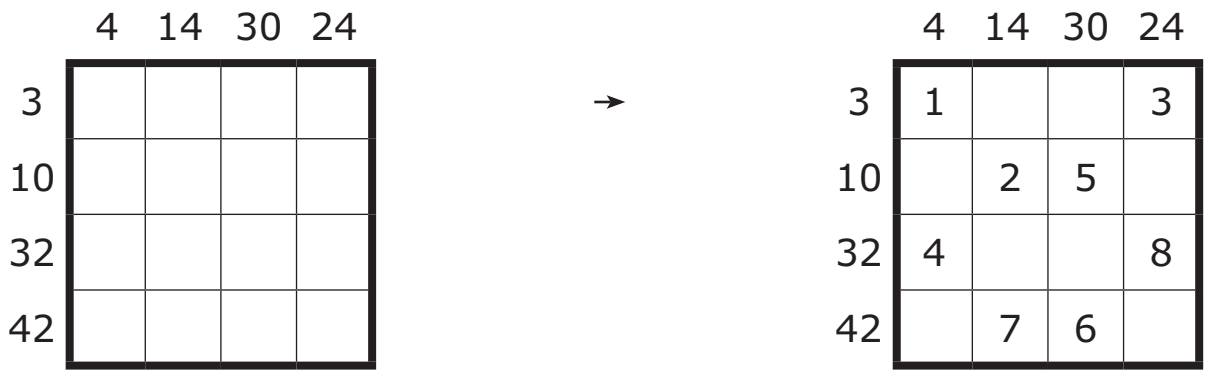
						11				5			
					10	17		12	8	1	22	7	9	9	19
				8	22	5	5	5	9	14	2	9	14	2	9
				2	8	18	20	10	16	17	9	1	3	11	6
				24	5	4	5	1	9	2	11	11	4	4	2
	2	4	4	24											
	34	5	2	4											
	1	12	16	7											
	13	3	15	3											
	8	21	12	3											
19	1	2	8	5											
2	8	8	9	5											
		15	13	10											
		19	7	10											
	17	15	4	6											
	7	5	9	1											
	9	10	15	5											

Code: the digits in column 3 and column 10. Empty = 0.

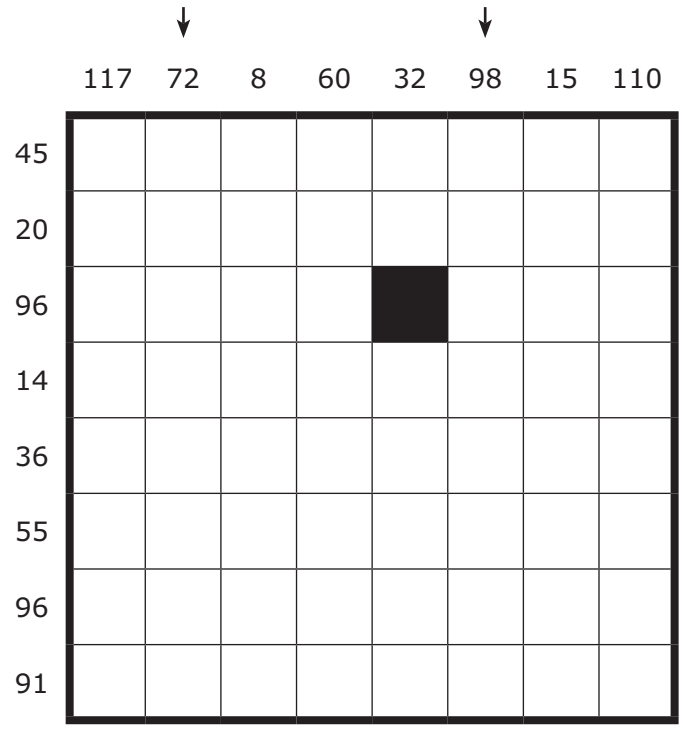
5 Number grid

The grid contains the numbers 1 to N exactly once, two of them on each row and in each column. The numbers outside the grid indicate the product of the two numbers in that row or column.

Example (1-8)



Puzzle (1-16)



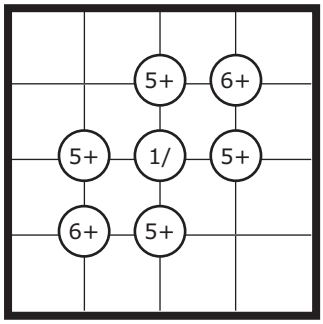
41 points

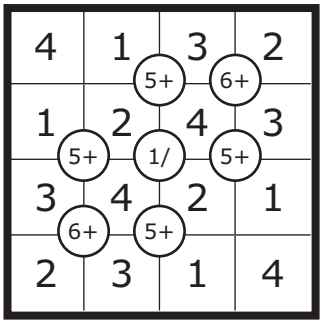
Code: the numbers in column 2 and column 6. Empty = 0.

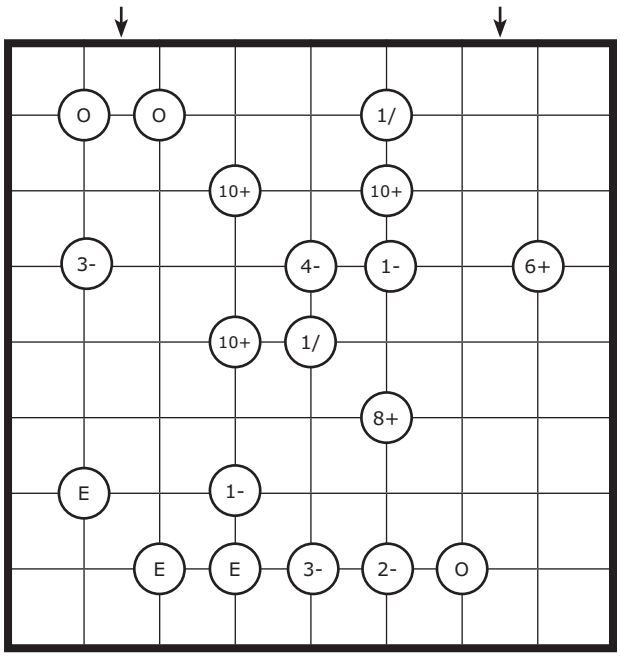
6 Mathrax

Fill in the digits 1-8 on each row and column. On some intersections you find hints. E means that in all four squares the number is even, and O means that all four numbers are odd. A number and a sign (+, -, x, /) means that that is the result of the both two paired diagonally adjacent squares.

Example (1-4)







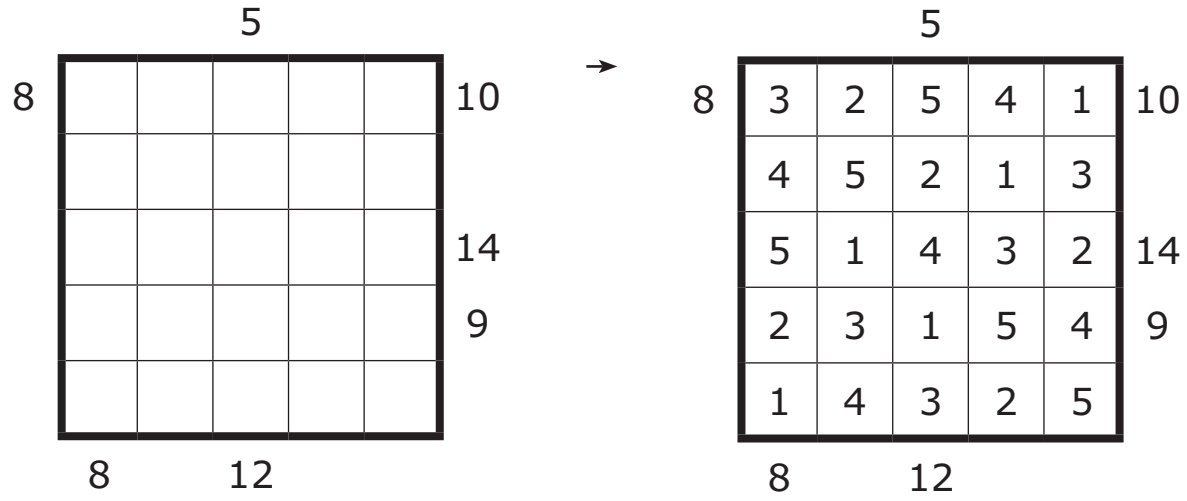
220 points

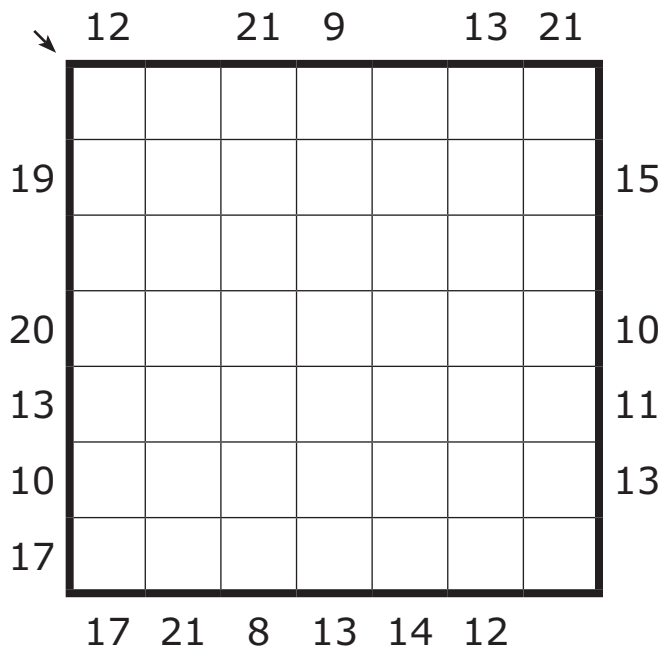
Code: what are the digits in columns 2 and 7?

7 Skyscrapers plus

Place the digits 1-7 in every row and column. Each digit indicates a skyscraper of that height. Numbers outside the grid indicate the sum of the visible skyscrapers.

Example (1-5)





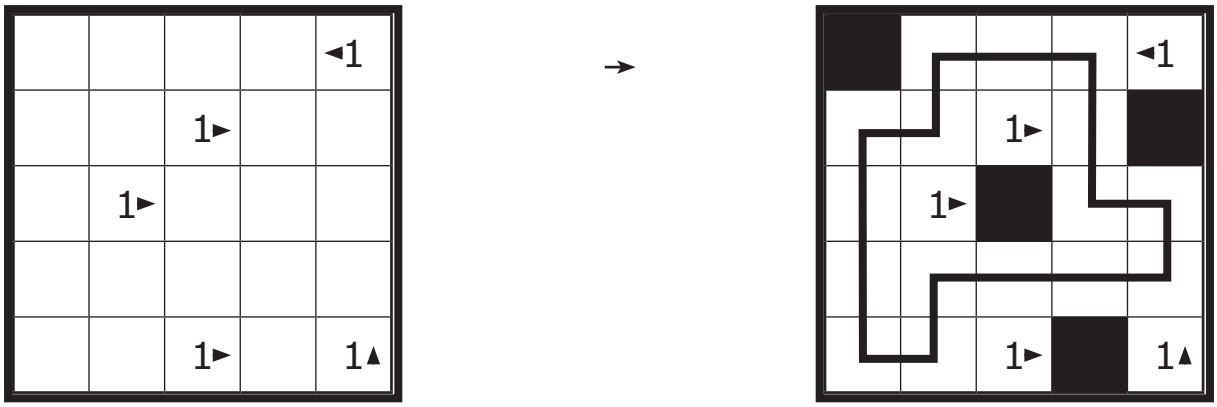
100 points

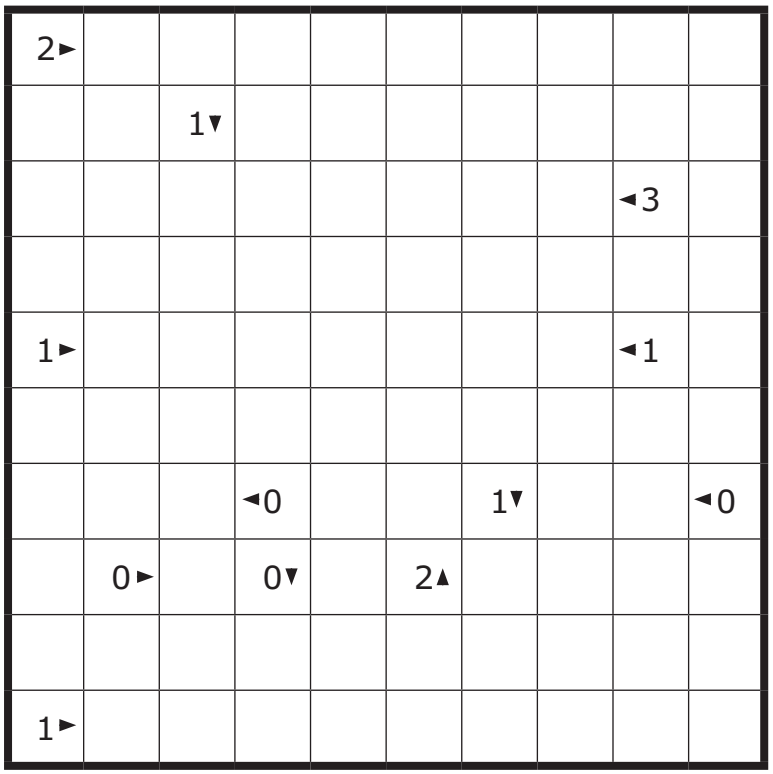
Code: which digitss are placed on the diagonal top left - bottom down?

8 Yajillin

Paint some cells black so that every arrow points to exactly the corresponding number of black squares. Black squares cannot touch each other from the sides but they may touch diagonally, and all remaining white cells not occupied by an arrow or not blackened should be traversed by a single closed loop that connects the centers of adjacent squares and doesn't cross itself. Draw the loop and blacken all the necessary squares.

Example





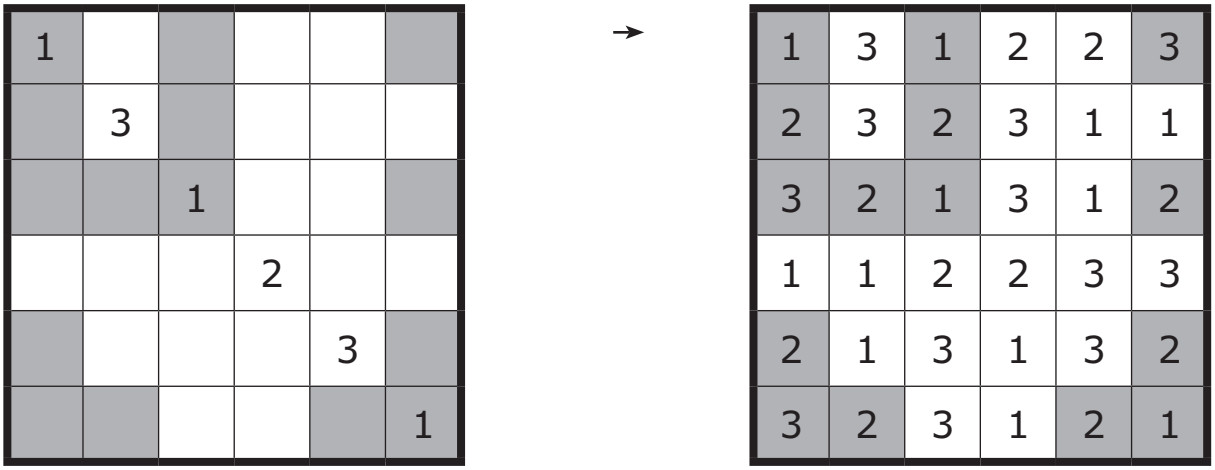
105 points

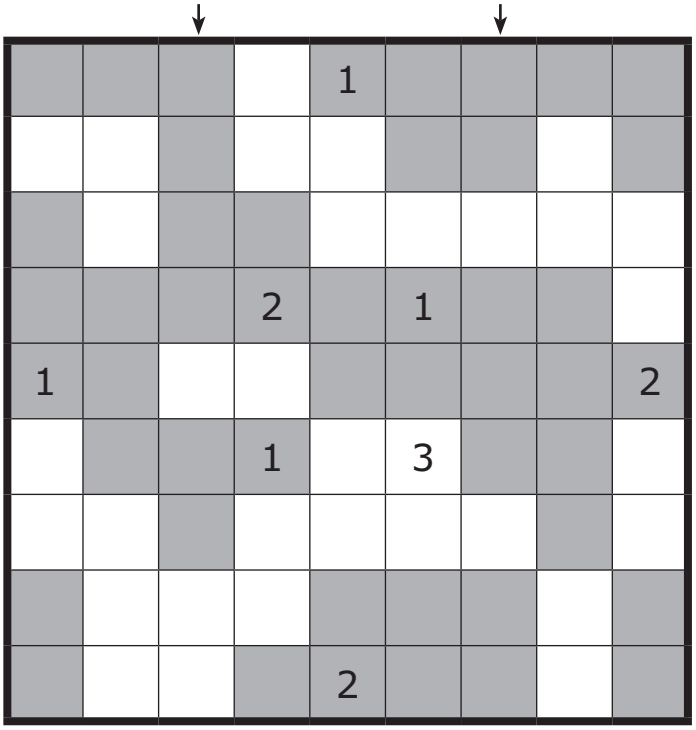
Code: how many black cells does the solution contain?

9 Neighbours

Place digits 1–3 in the grid so that in each row and column, each digit appears three times. Digits in grey cells do not share an edge with a cell containing the same digit. Digits in white cells share an edge with at least one cell containing the same digit. All grey cells are given.

Example (2 x 123)





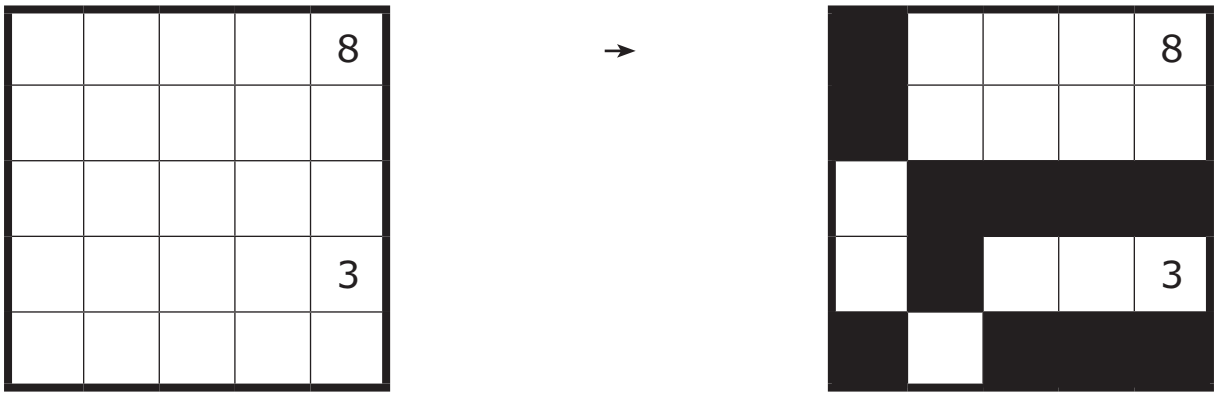
180 points

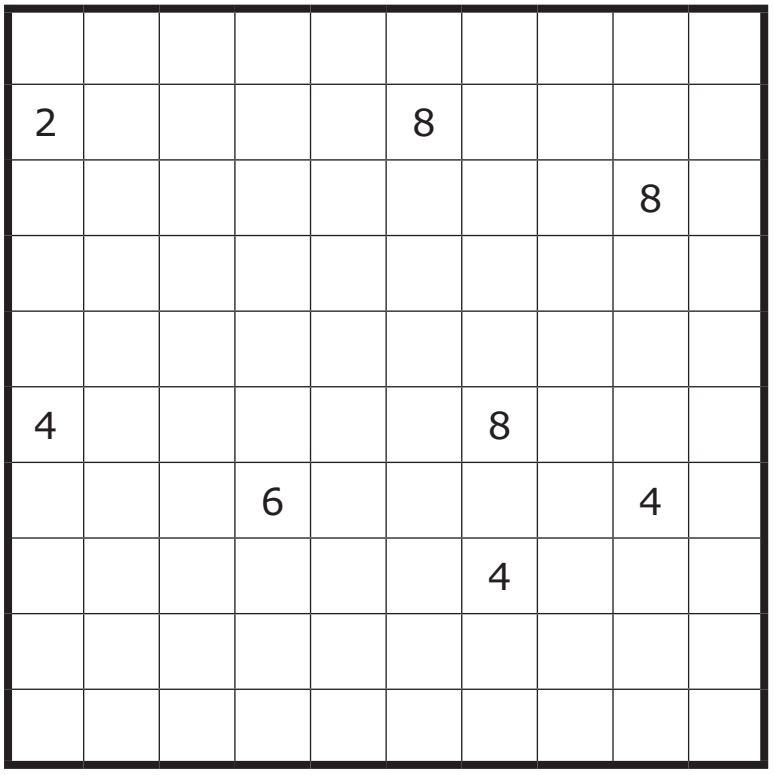
Code: the digits in column 3 and column 7.

10 Mochikoro

Blacken some cells in order to form rectangular areas of white cells. No two areas share an edge, but all areas are interconnected through their corners. All numbered cells are part of a white area, but not all white areas have a number. The number indicates the amount of white cells in that area, including the cell with the number. Blackened areas of 2x2 cells are not allowed.

Example





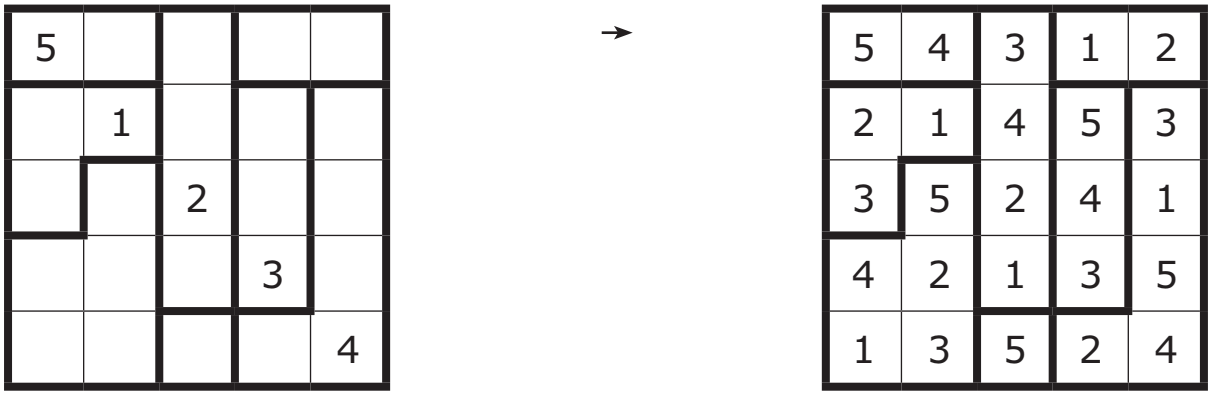
60 points

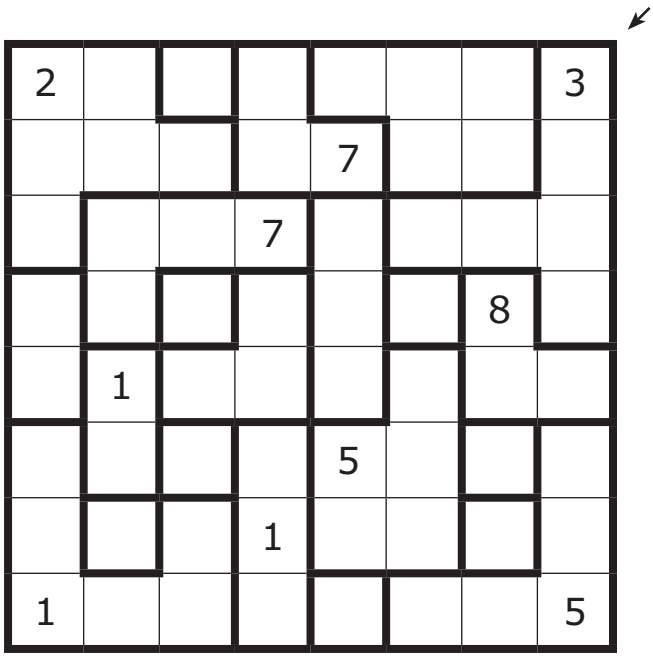
Code: how many areas have no number inside?

11 Renban

Place the figures 1-8 on each row and in each column. Figures in black edged regions are consecutive.

Example (1-5)





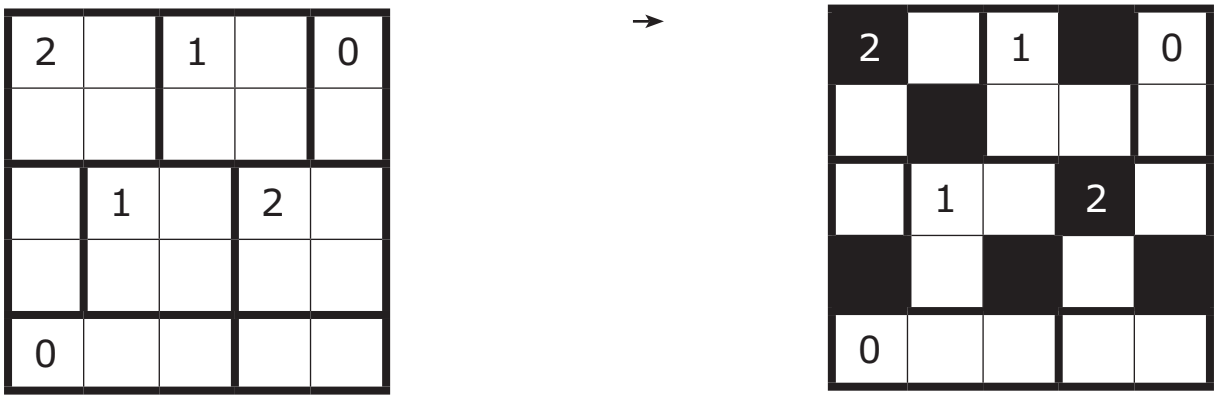
145 points

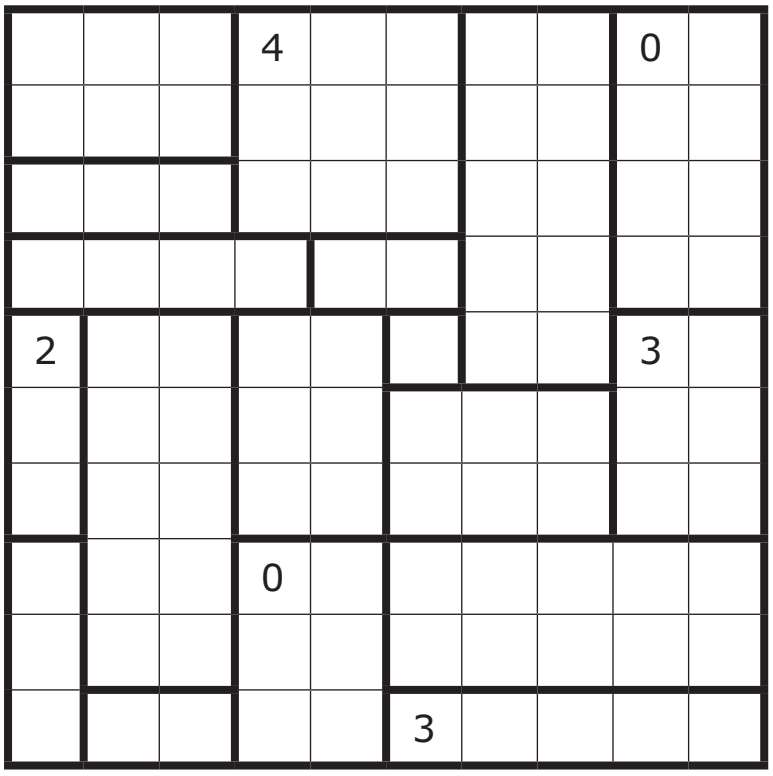
Code: what digits must be placed in the diagonal from the upper right to the bottom left?

12 Heyawake

Blacken some cells of the grid, so that black cells don't touch each other, except diagonally. All white cells remain orthogonally connected. A hint inside a region gives the number of black cells in that region. Hints may be blackened, but still hold. No horizontal or vertical sequence of white cells may span more than two regions.

Example





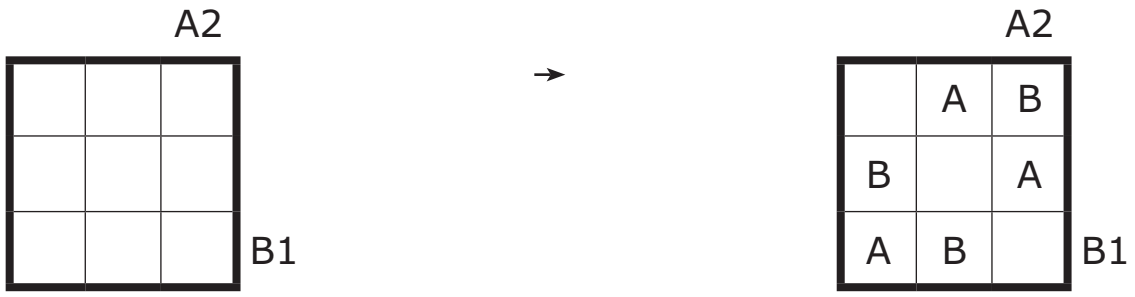
75 points

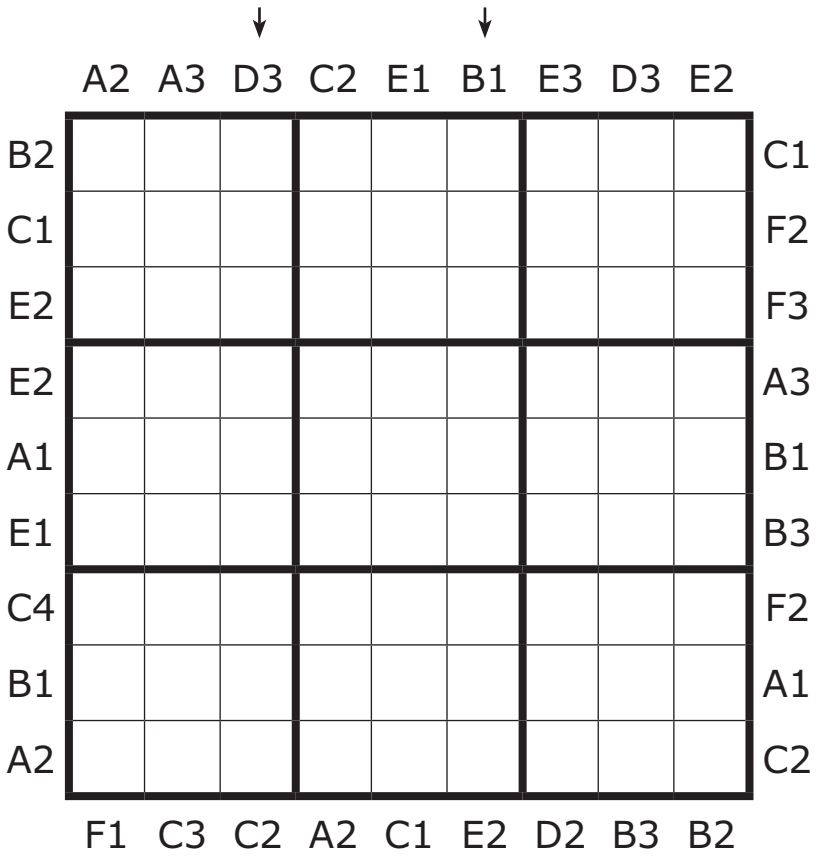
Code: how many black cells does the solution contain?

13 Easy as ABCDEF

Fill in the grid with letters ABCDEF so that each row, each column and each 3x3 block contains each letter exactly once. Some cells remain empty. Letters outside the grid indicate the relative position of the letter in that row or column.

Example (AB)





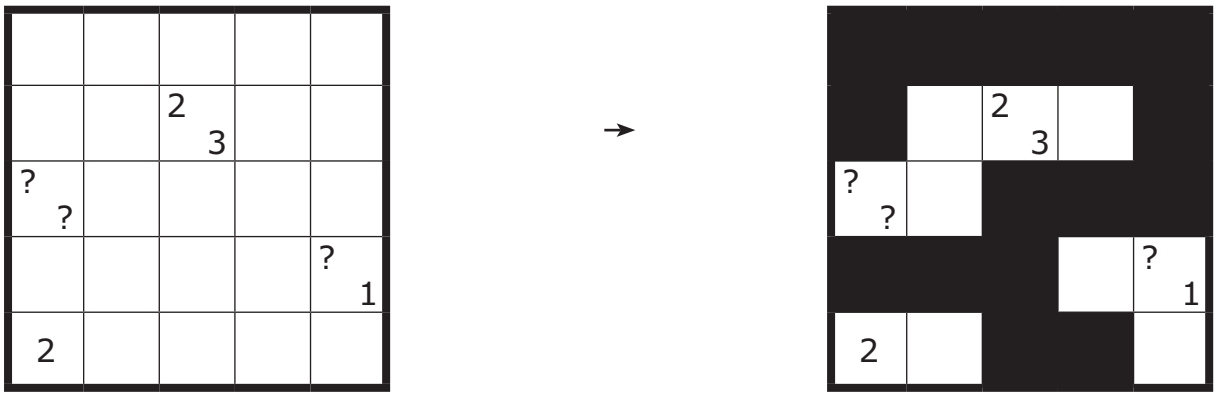
165 points

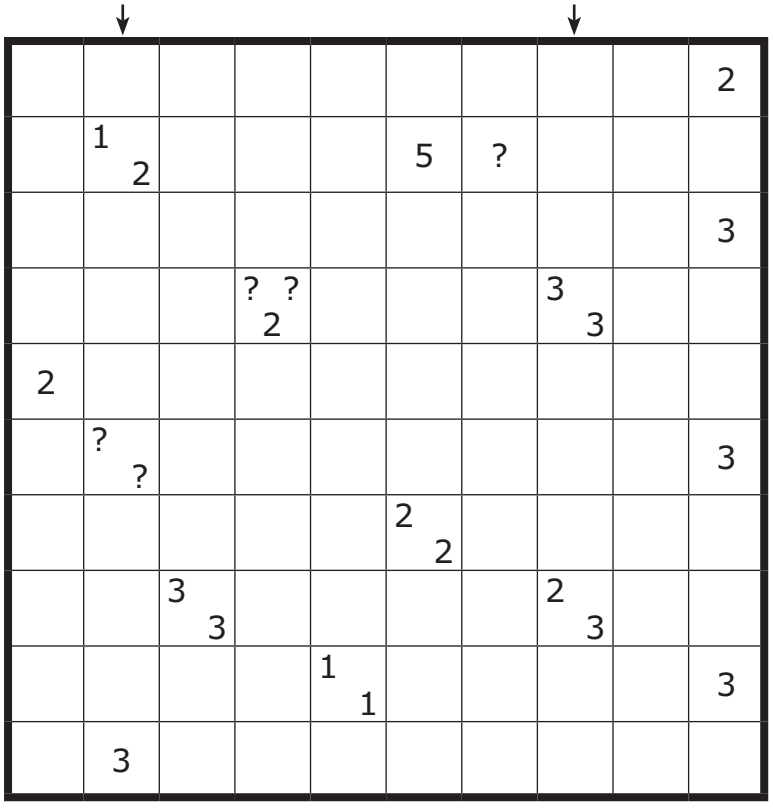
Code: column 3 and column 5, from top to bottom. Empty = 0.

14 Tapa

Grid cells must be filled in so that all the black cells form one contiguous region, not counting cells touching at a corner to be adjacent, but it is not allowed to have a two by two square of black cells. Clue cells with numbers may not be filled in and tell the length of each consecutive black cell block in the eight surrounding cells. Two cell blocks clued by two different numbers must be separated by at least one white cell.

Example





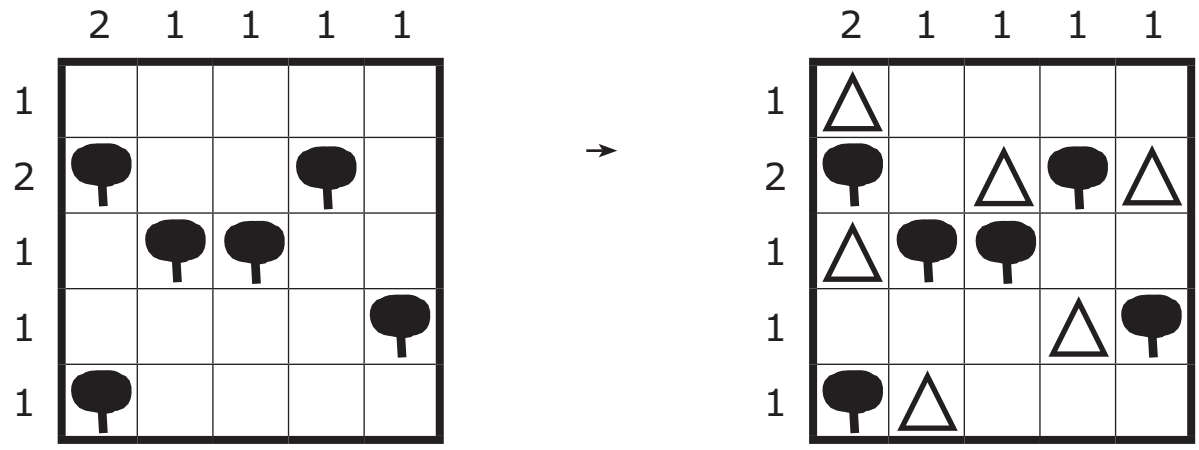
110 points

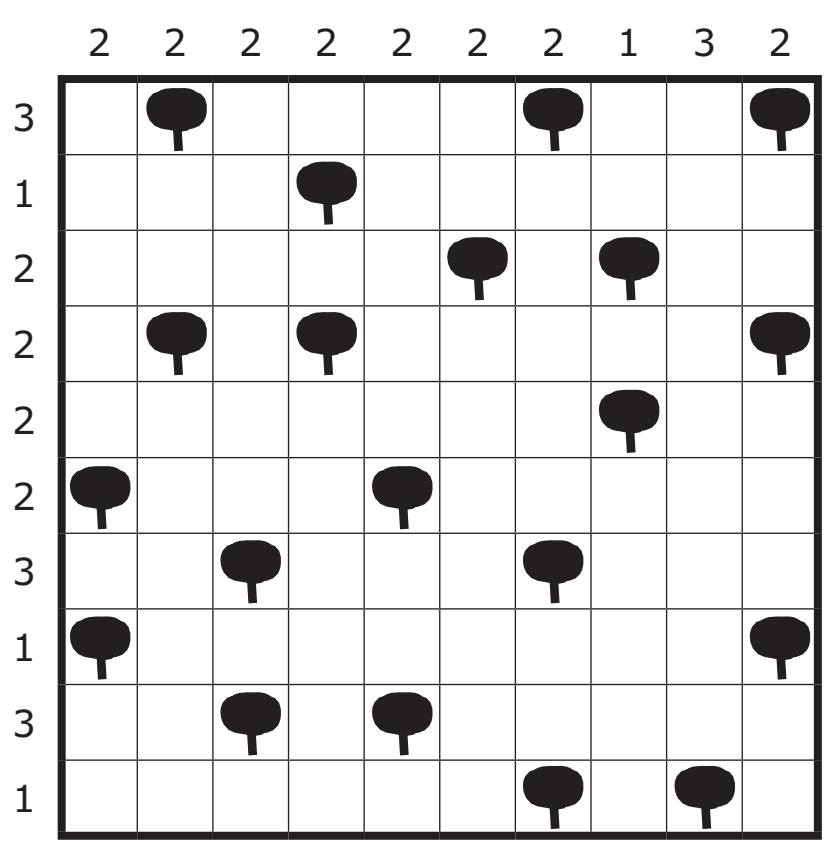
Code: count the black cells in columns 2 and 8. Separate those two numbers with an 0.

15 Tents

Place a tent next to each tree, in a horizontally or vertically adjacent cell. Cells with tents do not touch each other, not even diagonally. Numbers outside the grid indicate the number of tents in that row or column.

Example





125 points

Code: how many tents stand on the two main diagonals?

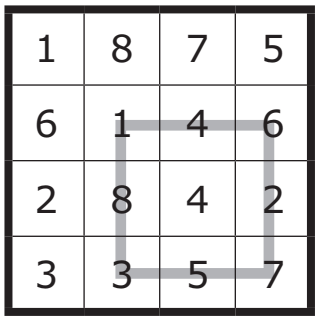
16 Loopy

The grid contains the numbers 1 to 32 each twice. Draw a continuous loop that does not intersect or overlap and contains all numbers exactly once. The loop only travels horizontally and vertically.

Example (1 to 8)

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

→



↓

17	21	30	22	19	16	8	24
28	21	4	11	3	15	12	28
25	18	9	26	14	31	29	31
25	7	6	13	30	1	7	20
13	3	27	16	32	9	17	2
2	32	12	11	29	15	26	19
20	10	27	14	4	23	10	1
24	23	5	5	22	6	18	8

105 points

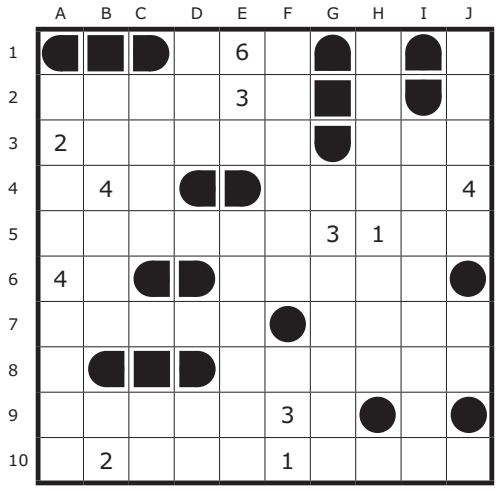
Code: what is the sum of the cells in column 7 that contain parts of the route?

Solutions

1 Number place

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

2 Battleships - lighthouses



3 No four in a row

X	O	O	O	X	X	X	O	X	O
O	X	O	X	O	O	X	X	O	X
X	X	O	O	X	O	O	X	O	O
O	O	X	X	X	O	X	X	O	O
O	X	X	X	O	X	O	O	X	X
X	O	O	X	O	O	X	X	O	X
X	O	O	O	X	X	O	O	X	O
O	X	X	X	O	O	O	X	X	X
X	X	O	X	X	X	O	O	X	O
X	O	O	O	X	O	X	O	O	O

4 Japanese square

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

5 Number grid

	117	72	8	60	32	98	15	110
45				15			3	
20					2			10
96		12	8		■			
14			1			14		
36	9			4				
55							5	11
96		6			16			
91	13					7		

6 Mathrax

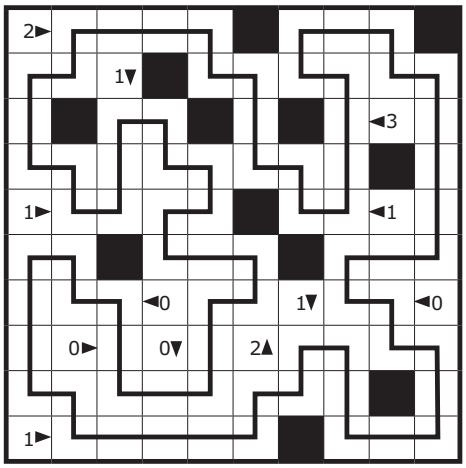
3	7	1	5	8	4	2	6
1	3	7	2	4	8	6	5
7	5	8	3	2	6	4	1
8	4	3	6	7	1	5	2
2	1	4	7	6	5	8	3
4	6	5	1	3	2	7	8
6	8	2	4	5	3	1	7
5	2	6	8	1	7	3	4

Solutions

7 Skyscrapers plus

	12		21	9		13	21	
	5	7	3	2	4	6	1	
19	3	4	5	7	6	1	2	15
	7	6	4	1	3	2	5	
20	2	5	6	4	1	7	3	10
13	6	1	2	5	7	3	4	11
10	1	2	7	3	5	4	6	13
17	4	3	1	6	2	5	7	
	17	21	8	13	14	12		

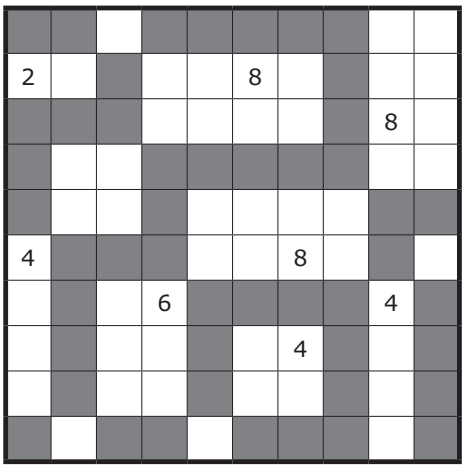
8 Yajillin



9 Neighbours

3	2	1	3	1	2	3	2	1
1	1	2	3	2	3	1	3	2
3	1	3	1	2	2	2	3	1
2	3	1	2	3	1	3	2	1
1	2	3	3	1	2	1	3	2
2	1	2	1	3	3	2	1	3
2	3	1	2	3	1	1	2	3
1	3	3	2	1	3	2	1	2
3	2	2	1	2	1	3	1	3

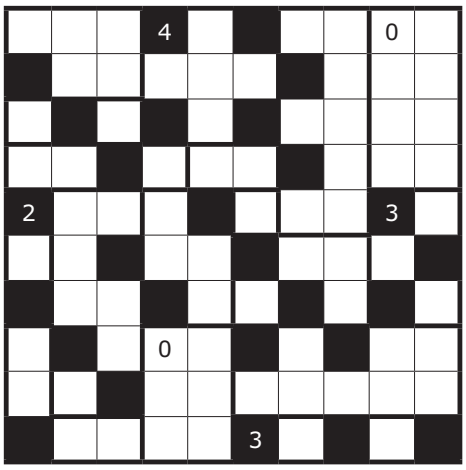
10 Mochikoro



11 Renban

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

12 Heyawake

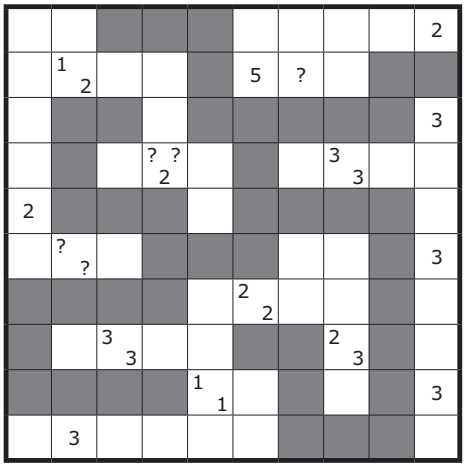


Solutions

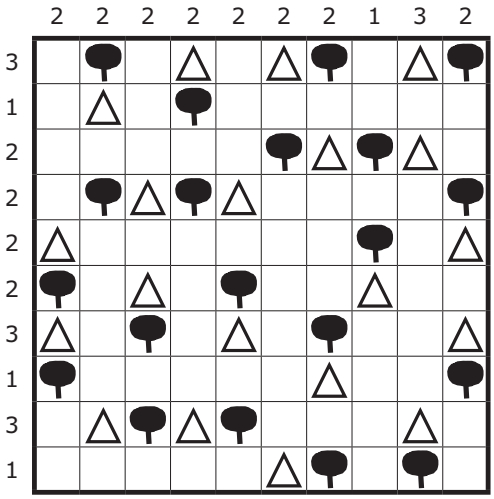
13 Easy as ABCDEF

	A2	A3	D3	C2	E1	B1	E3	D3	E2	
B2		F	B	D	E			A	C	C1
C1	C	D			A	B	F		E	F2
E2	A		E	C	F		B		D	F3
E2	B			E	D	A		C	F	A3
A1		A	D	F		C	E		B	B1
E1	E	C	F		B		A	D		B3
C4	D	E		A	C	F		B		F2
B1		B	C			E	D	F	A	A1
A2	F		A	B		D	C	E		C2
	F1	C3	C2	A2	C1	E2	D2	B3	B2	

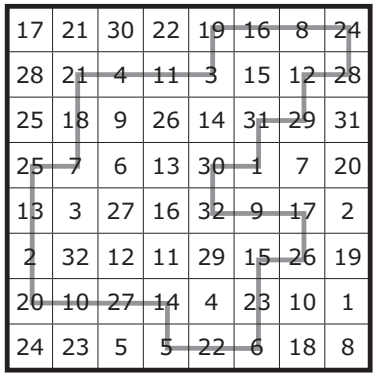
14 Tapa



15 Tents



16 Loopy



17	21	30	22	19	16	8	24
28	21	4	11	3	15	12	28
25	18	9	26	14	31	29	31
25	7	6	13	30	1	7	20
13	3	27	16	32	9	17	2
2	32	12	11	29	15	26	19
20	10	27	14	4	23	10	1
24	23	5	5	22	6	18	8