

## WCPN Dutch Puzzle Championships 2016

Sunday April 24th 13.00-14.30

Twelve 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 25 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 16th to 23rd 2016. 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 published on Wednesday April 27th.

	Puzzle	Points
1	Pentomino - touching	70
2	Battleships - minesweeper	90
3	No four in a row	120
4	Japanese square plus	90
5	Creek	120
6	Star battle	75
7	Neighbours	80
8	Snake	45
9	Easy as ABCDE	140
10	Tapa	100
11	Tents	30
12	Zoo	40
		<b>1000</b>

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](mailto:wcpn@ziggo.nl)

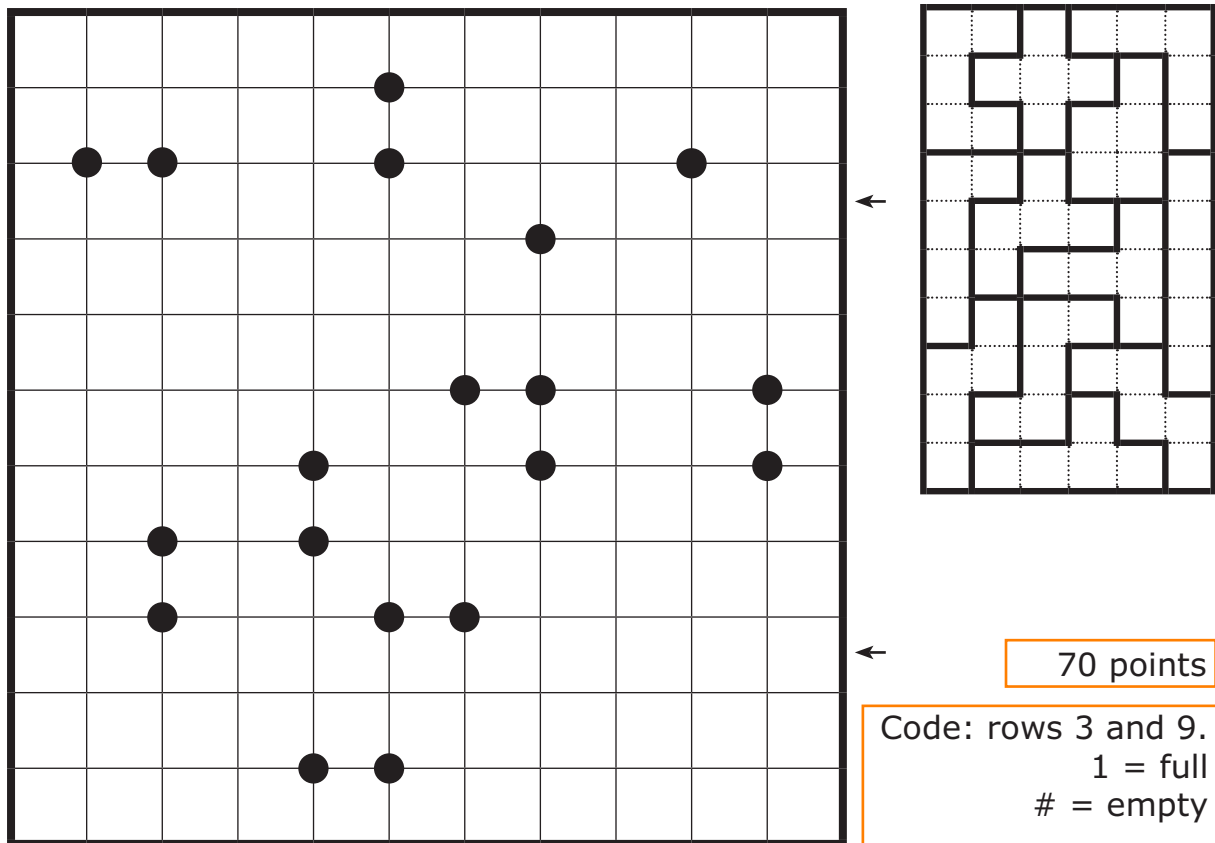
Results will be published on Wednesday April 27th.

Protest about these results is not possible, but of course you can ask questions.

### 1 Pentomino - touching

Place all twelve pentominoes in the grid. The shapes can be mirrored and reflected, but they can only touch diagonally. All points where two pentominoes touch are indicated by a black dot.

Example (with four different pentominoes)



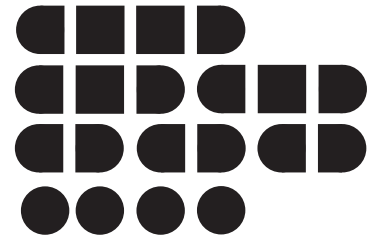
## 2 Battleships - minesweeper

Place the given ships in the grid, so that they don't touch each other, not even diagonally. Numbers in the grid indicate how many of the surrounding cells are occupied by ship segments. Cells with numbers are not occupied.

Example



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



90 points

Code: give the 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

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



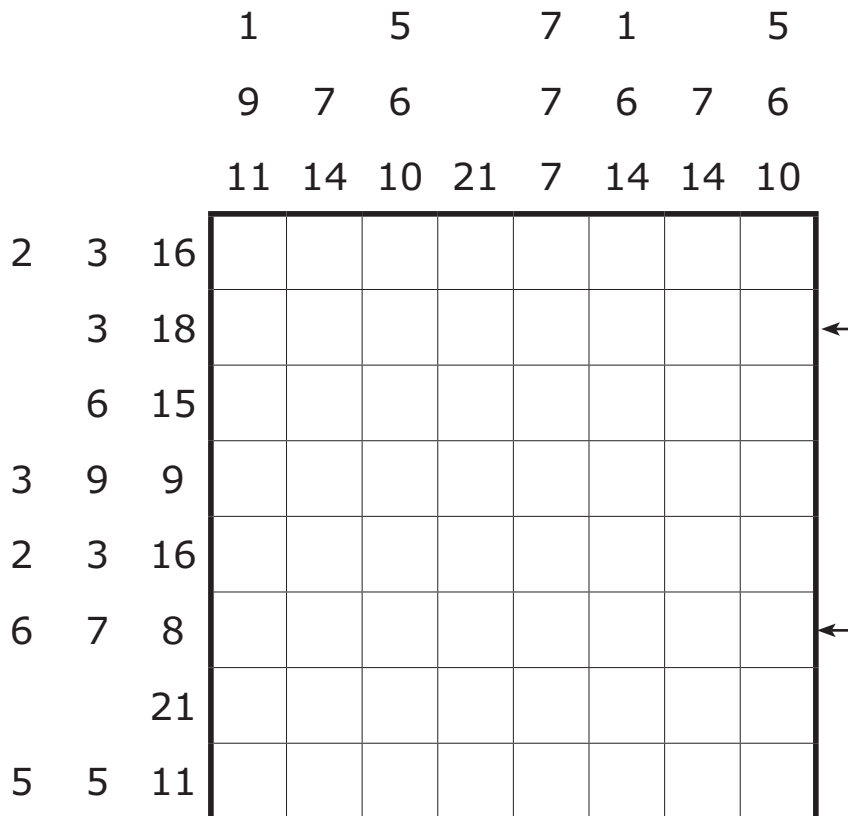
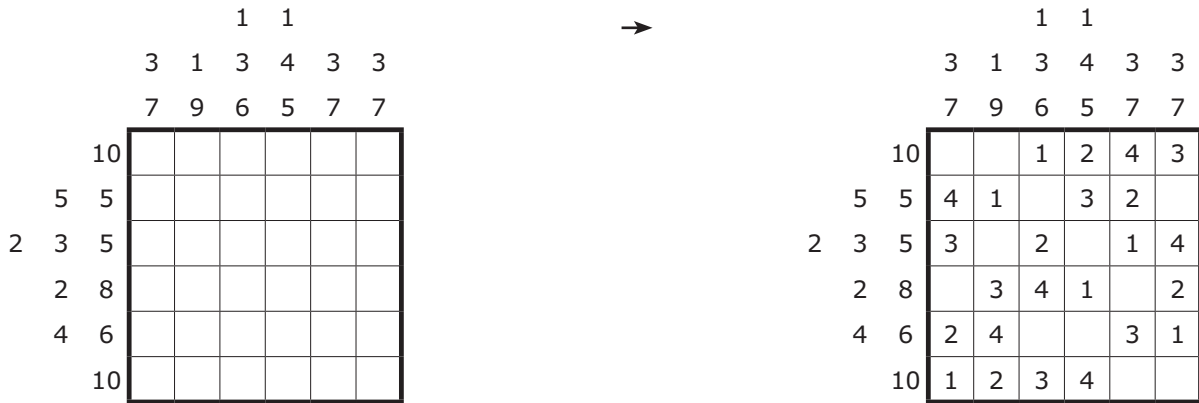
120 points

Code: the symbols in rows 2 and 5.

#### 4 Japanese square plus

Place digits 1–6 into each column and on each row exactly once. Numbers outside the grid indicate the sums of blocks of digits in that row or column. These sums are placed in increasing order, not necessary in the order of the solution. Blocks have to be separated by at least one empty cell.

Example (1-4)



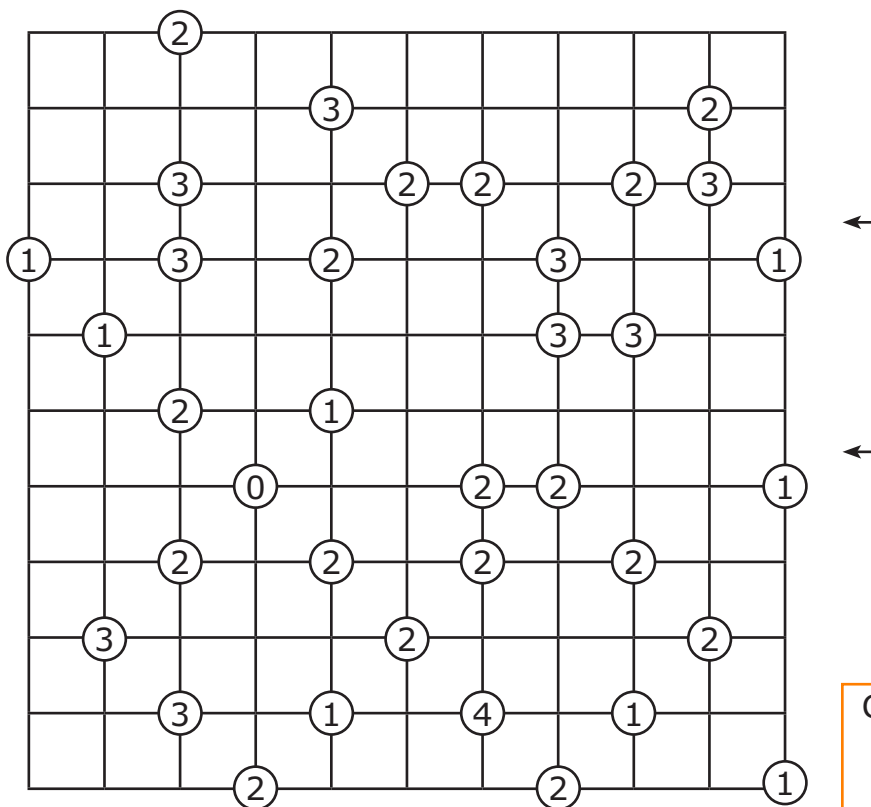
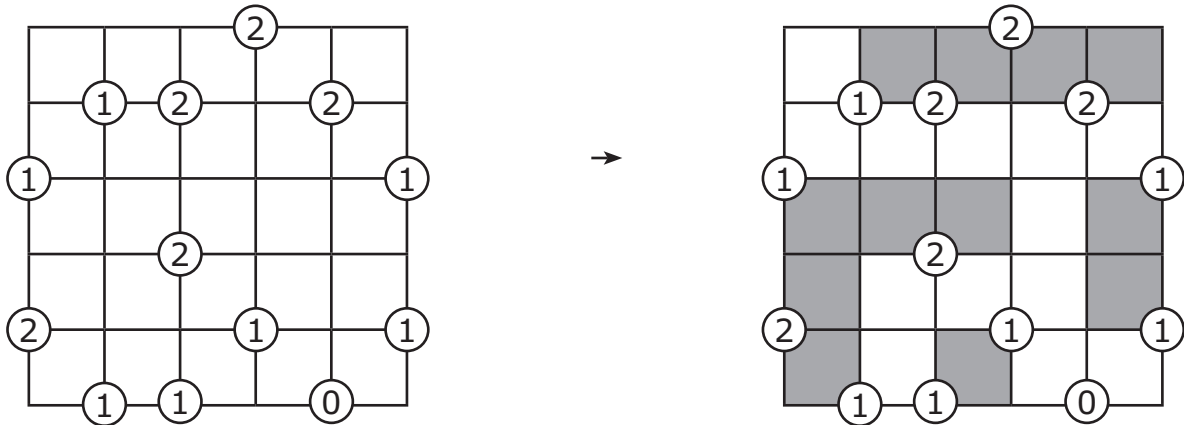
90 points

Code: the digits in row 2 and row 6.  
# = empty

### 5 Creek

The digits in the circles indicate how many of the adjacent cells must be coloured. All remaining white cells are connected horizontally or vertically.

#### Example



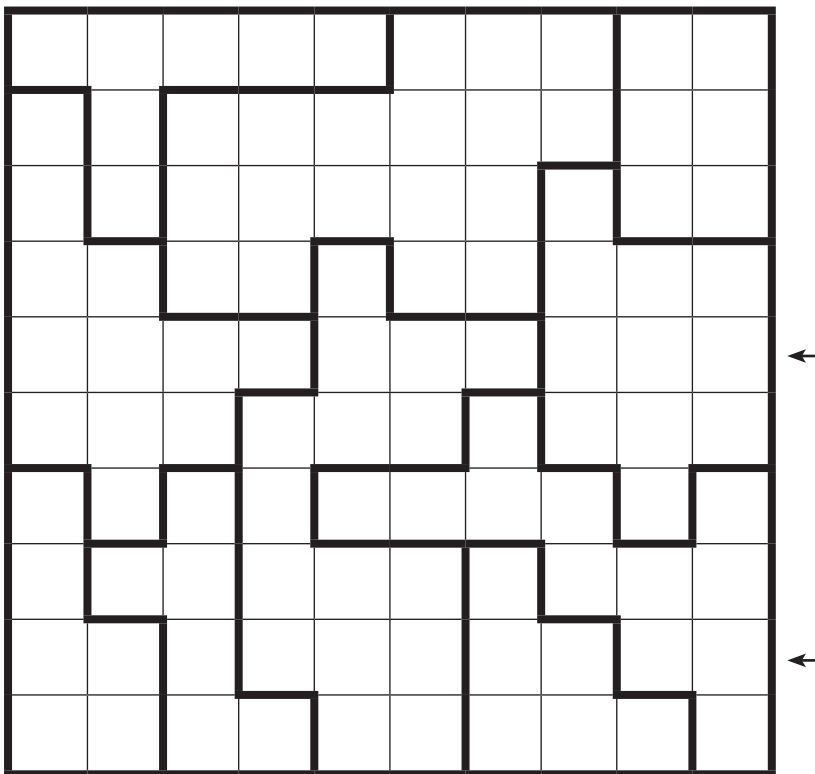
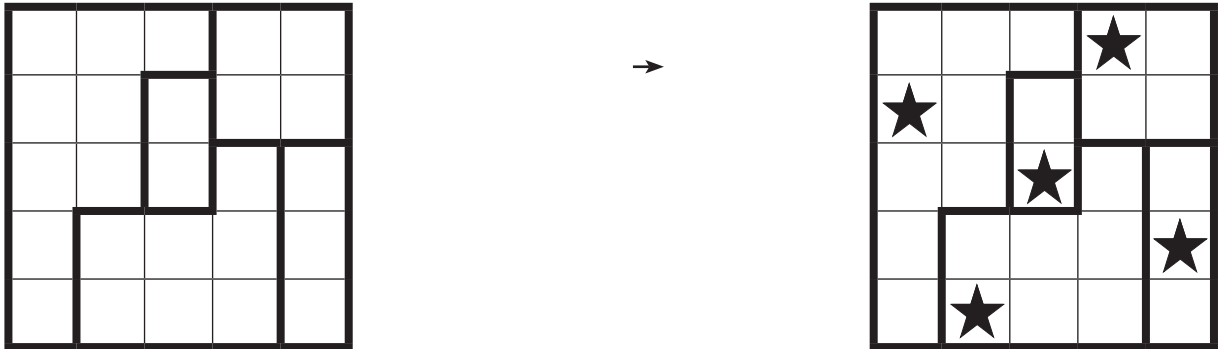
120 points

Code: rows 3 and 6.  
1 = coloured  
# = empty

### 6 Star battle

Place two stars with the size of one cell in each row, column and outlined region. The stars do not touch each other, not even diagonally.

Example with one star



75 points

Code: rows 5 and 9.  
1 = star  
# = empty

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### 7 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)

1					
	3				
		1			
			2		
				3	
					1



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

				1				
			2		2			
		3				2		
			2		1			
				3				



80 points

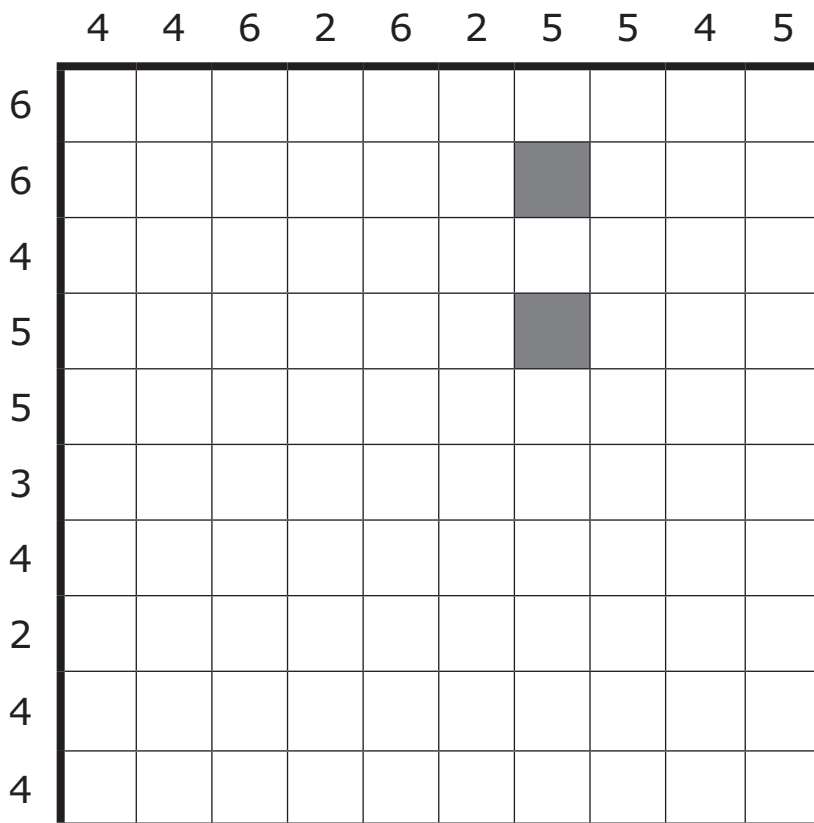
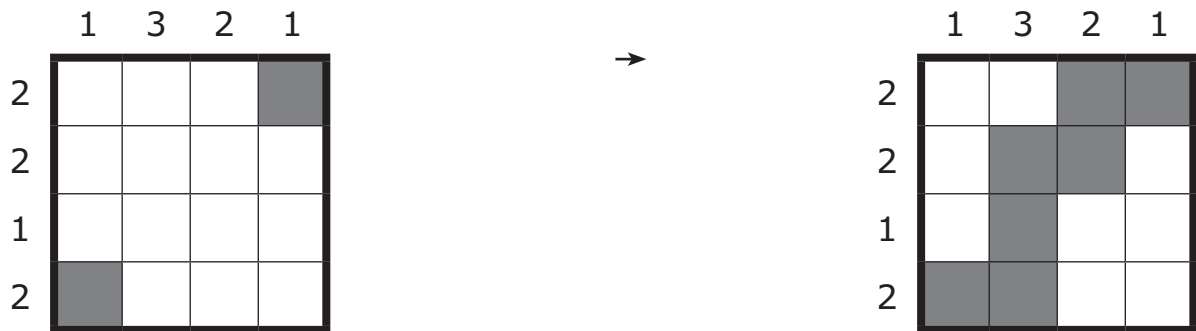
Code: the digits in rows 8 and 9.



### 8 Snake

Find a snake in the grid whose head and tail are indicated by grey cells. The snake wriggles horizontally and vertically and never touches itself, not even diagonally. The digits outside the grid indicate the number of cells occupied by the snake in that row or column.

Example



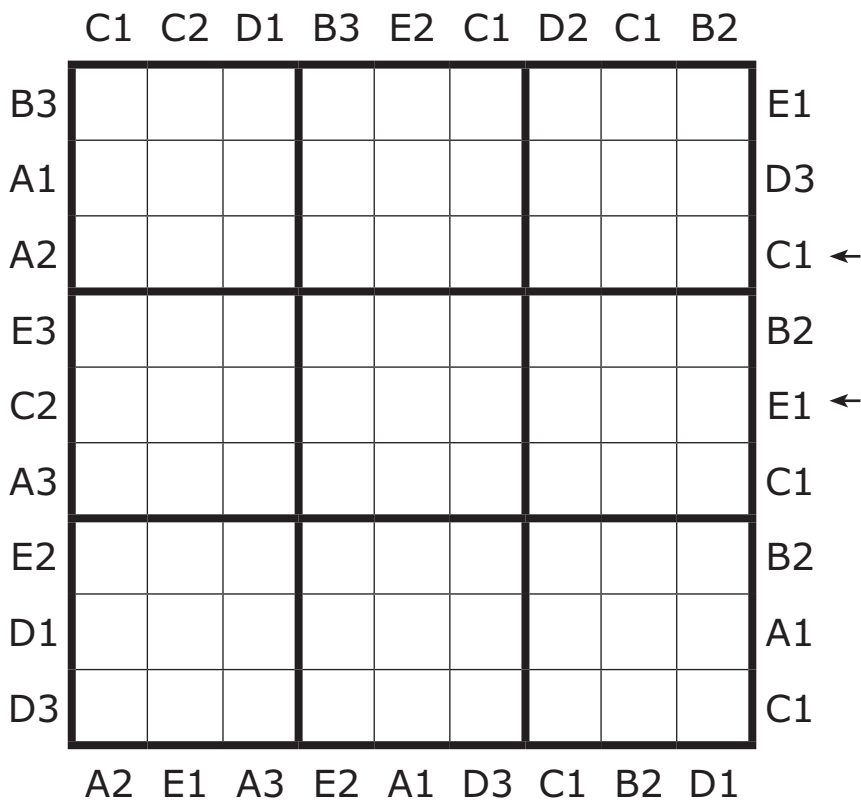
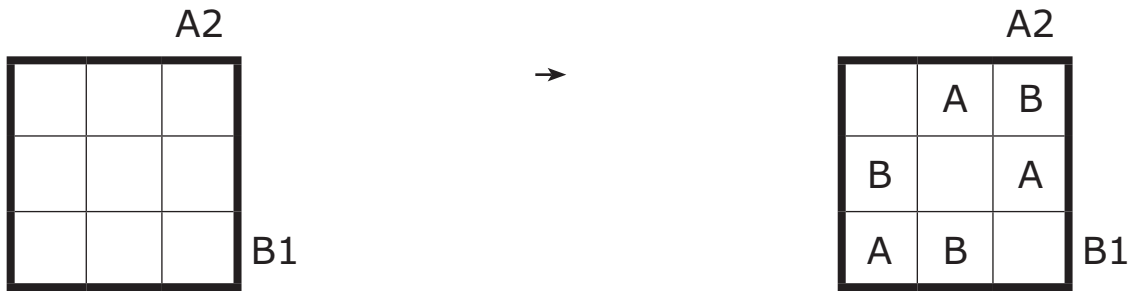
45 points

Code: how many squares on the two main diagonals are occupied by the snake?

### 9 Easy as ABCDE

Fill in the grid with letters ABCDE 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)



140 points

Code: row 3 and row 5, from left to right.  
# = empty

### 10 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

		2		
?		3		
?				?
				1
2				



		2		
?		3		
?				
				?
				1
2				

2									3
			1			1			
		?	2			1			
		3							6
3									
				1				1	
				3				3	
1								?	
1			2					2	
		5		?					
				?					
2									2

Some numbers are replaced by question marks; the position of the question mark is not important. A question mark never replaces a zero.

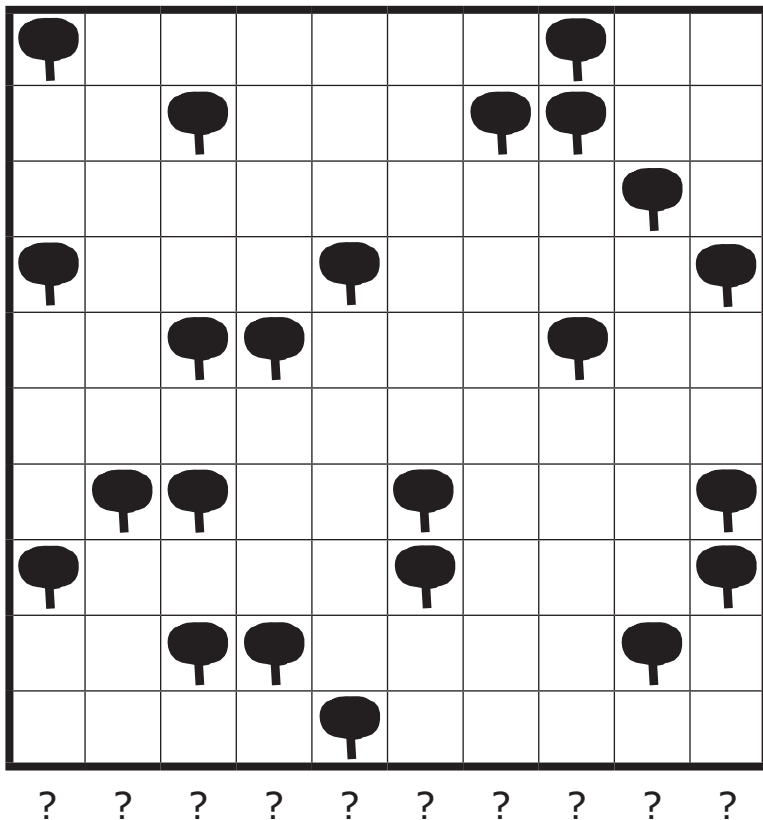
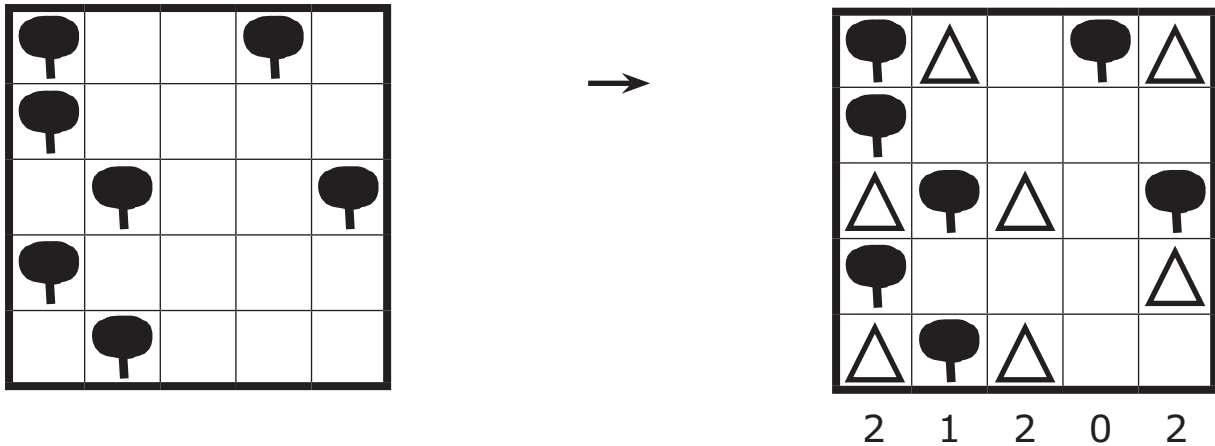
100 points

Code: count the black cells in rows 6 and 8. Separate those two numbers with a #.

## 11 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. Note that this is a clueless puzzle.

### Example



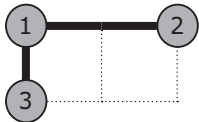
30 points

Code: how many tents appear in the columns from left to right?

## 12 Zoo

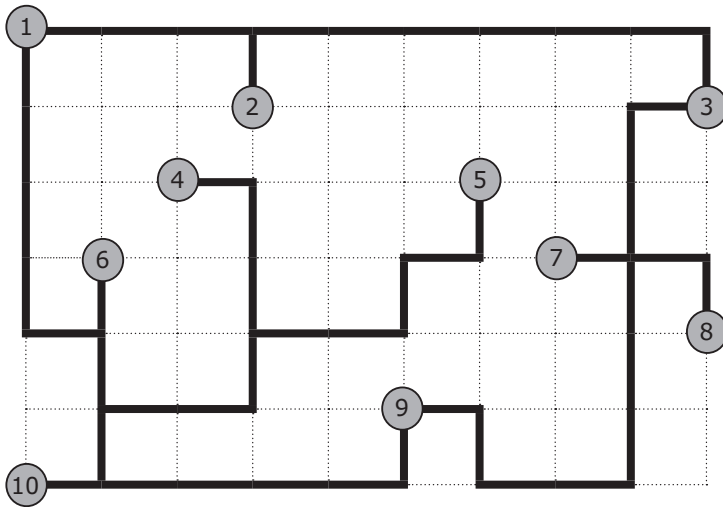
The grid is the map of a zoo. Different attractions can be found at the spots 1 to 10. The thick lines are the paths, divided in units of 1. We use the shortest possible routes. (For instance, the distance between 1 and 10 is 8.) All attractions are also indicated by a letter (A to J). Given the distances, which letters belong to the numbers 1 to 10?

Example



1 = B  
2 = C  
3 = A

AB = 1  
BC = 2



CD = 9  
CB = 6  
IJ = 22  
FD = 3  
IA = 8  
BA = 10  
HJ = 10  
HE = 6

40 points

Code: what letters  
represent the  
numbers 1 to 10?



# Solutions

## 7 Neighbours

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

## 8 Snake

	4	4	6	2	6	2	5	5	4	5
6										
6										
4										
5										
5										
3										
4										
2										
4										
4										

## 9 Easy as ABCDE

	C1	C2	D1	B3	E2	C1	D2	C1	B2	
B3	C		D		B		A		E	E1
A1				A	E		D	C	B	D3
A2	B	A	E		D	C				C1
E3	D			C		E	B		A	B2
C2	A	C		B		D		E		E1
A3	E	B				A		D	C	C1
E2			A	E	C			B	D	B2
D1		D	C			B	E	A		A1
D3		E	B	D	A		C			C1
	A2	E1	A3	E2	A1	D3	C1	B2	D1	

## 10 Tapa

2										3
			1	2			1	1		
		?	3							6
3										
				1	3				1	3
1	1			2					?	2
			5		?	?				
2									2	

## 11 Tents

●	△				△	●	△		
△	●				●	●			
				△		△	●	△	
●	△		●					●	
△	●	●	△		△	●		△	
		△							
△	●	●		●	△		△	●	
●	△		△	●				●	
△	●	●			△	●		△	
			△	●	△				
4	0	4	1	3	1	3	2	2	3

## 12 Zoo

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

