

NAME:

COUNTRY:

POINTS:



13TH 24 HOURS PUZZLE CHAMPIONSHIP

9-11 NOVEMBER, 2012

HOTEL AMADEUS

BUDAPEST

PUZZLES BY

MATEJ UHER

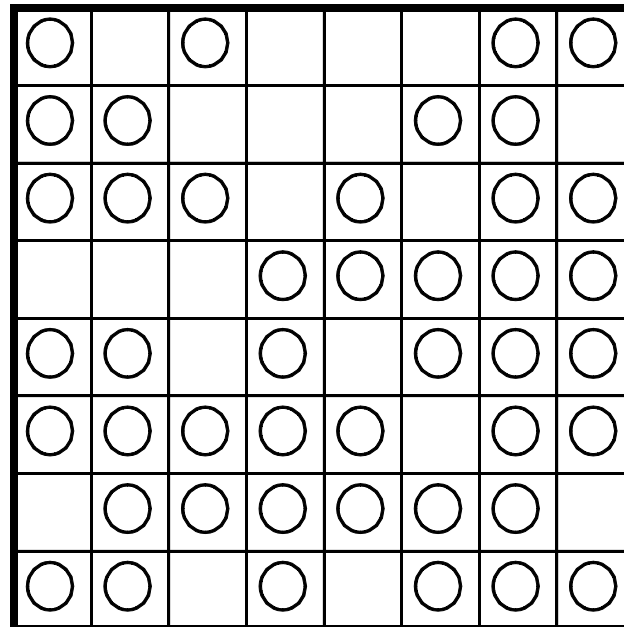
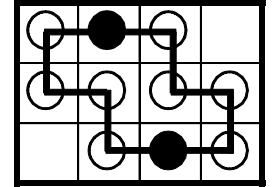
TEST SOLVERS AND OTHER AUTHORS

MATÚŠ DEMIGER, PETER HUDÁK, ŠTEFAN GAŠPÁR

Loop splitter	10 points
X-kakuro	100 points
2-1 tiles	60 points (30+30)
Linked squares	25 points
Spy star	55 points
High wind	30 points
Friendly campers	30 points (15+15)
Missing arrows	15 points (5+5+5)
Fishermen	45 points
White pentamino	70 points
Tapa	60 points
Fences	50 points
Pointing at the treasure	50 points
Pipes	30 points
Russian field	95 points (60+35)
Dig it?	55 points
Sao Paulo	70 points (5+15+25 + 25)
Domino arrows	75 points
Easy as ABC hexa not the first	30 points
Farms	45 points (20+25)

TOTAL 1000 points

Paint 2 circles (already in the grid) black. Then draw a single closed loop (by connecting horizontally and vertically neighbouring squares) that goes through every circle (but not necessarily through every cell in the grid). The loop can make a turn only in a circle. The loop must make a turn in every white circle and must pass straight through every black circle. There is exactly 21 white circles between 2 black circles going along the loop.



X – KAKURO

Place a number 1 – 9 in every white cell of the grid so that no number is repeated in any sequence of vertically or horizontally connected white cells. A number to the left and above each such sequence is a result of the following operation: multiply first 2 numbers (from left to right or top to bottom) in the sequence, then add the rest (if there are any).

	69	18		48	10	28
60						
7			$\frac{19}{24}$			
71				21		
48						

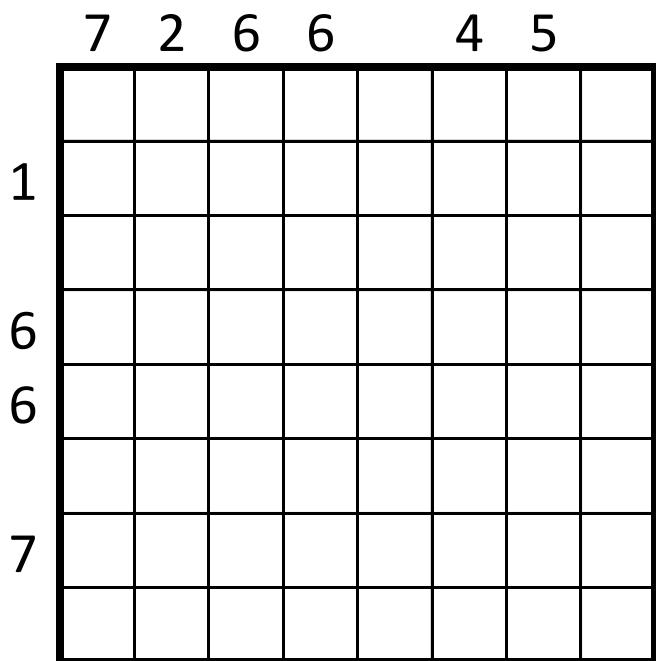
	69	18		48	10	28
60	8	5	9	6	1	4
7	7	1	$\begin{smallmatrix} 19 \\ 24 \end{smallmatrix}$	8	2	3
71	9	7	8	21	3	7
48	4	6	3	7	5	9

	58		60	11	19	14	76	56	65
54									
60									
29						44			
7						18			
37				6	18	38			
50									
44							3		
76								8	

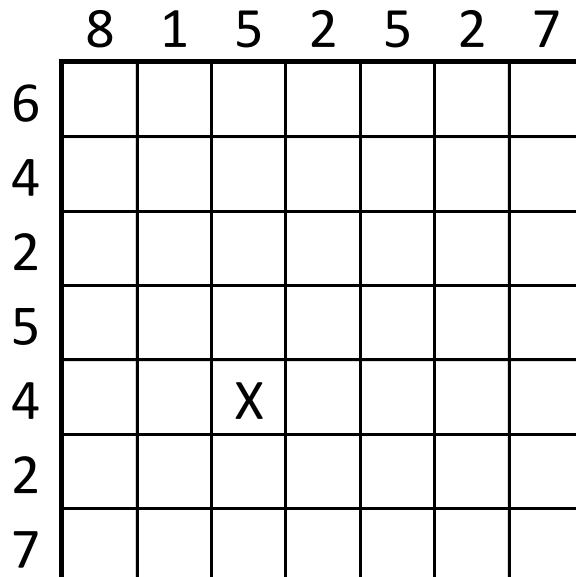
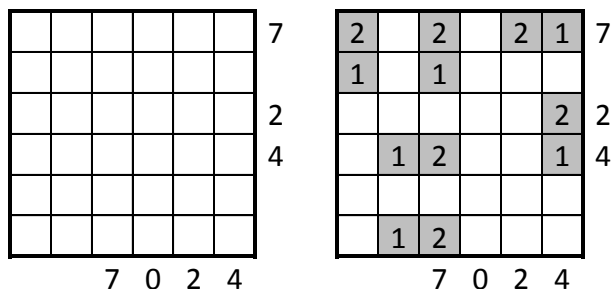
100 points

2-1 TILES

Place tiles of size 1x2 cells in the grid, with numbers 1 and 2 each. Tiles can be rotated but they cannot touch each other, not even diagonally. Numbers outside the grid indicate the sum of all the numbers in the corresponding row/column. Cells with sign "X" should not contain any tile.



30 points

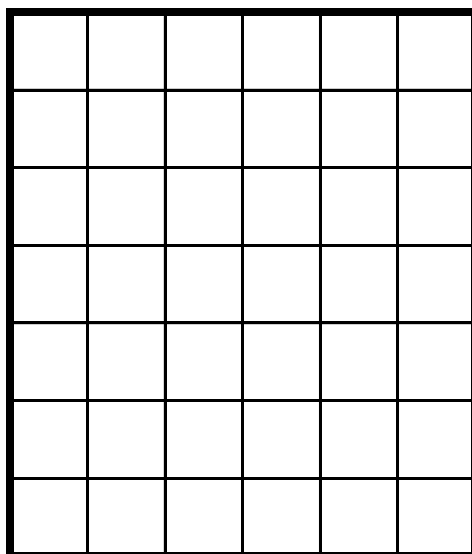


30 points

LINKED SQUARES

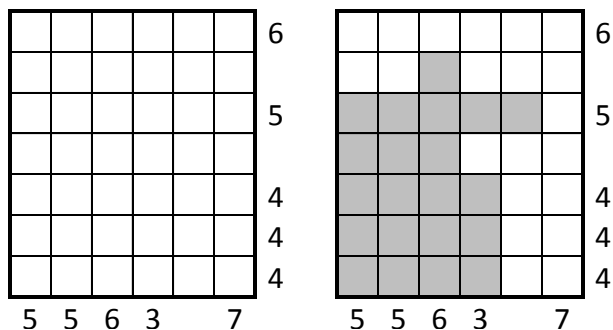
Divide the grid along the grid lines into two parts, each having the size of 21 connected squares. Numbers outside the grid indicate the longest sequence of connected squares belonging to one part of the grid in the corresponding row/column.

3



1
2

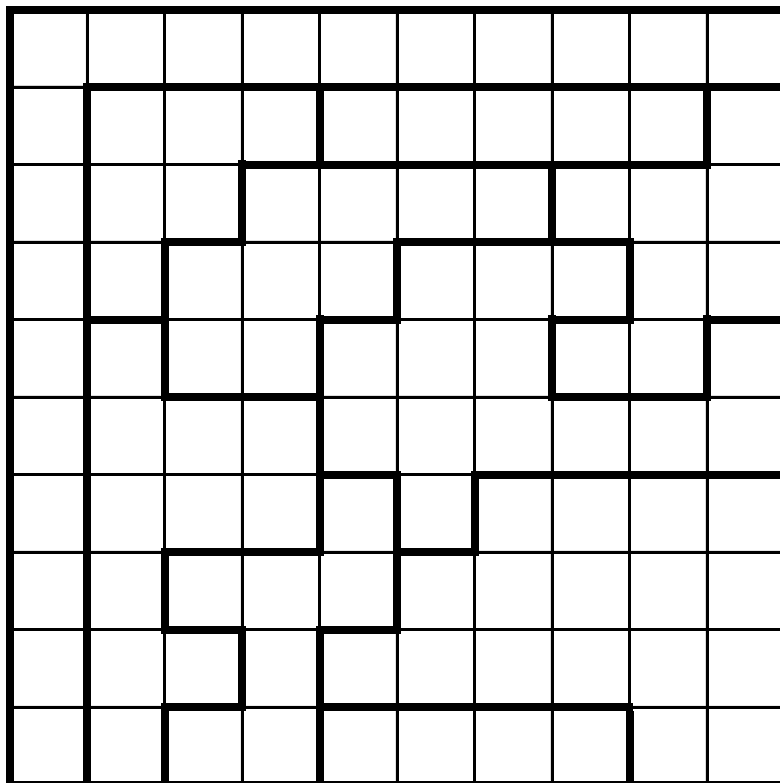
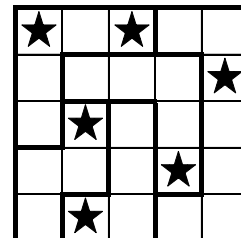
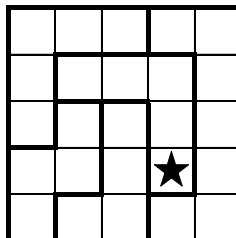
25 points



SPY STAR

Place two stars (one star in the example) in each row, column and thickly outlined area (one star per cell) so that the stars do not touch, not even diagonally.

Note: there is one row, one column and one area with three stars! (with two stars in the example)

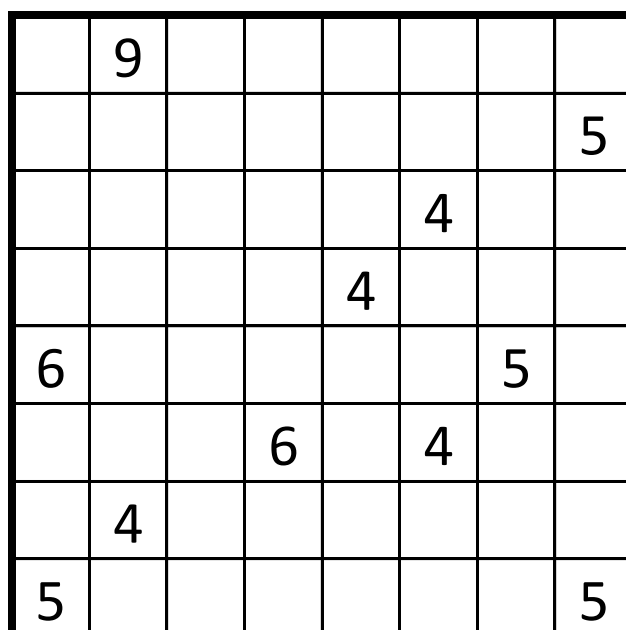
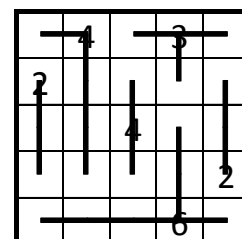
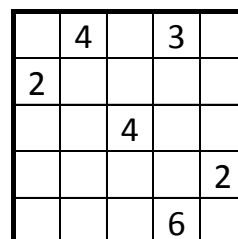


55 points

HIGH WIND

Draw one or more horizontal and/or vertical lines from each number in the grid. Each number indicates the number of cells covered by all lines starting from that number (the cell with the number not included). Lines can neither cross nor overlap. Every cell of the grid has to be covered by a line.

Note: one number in the grid is incorrect!

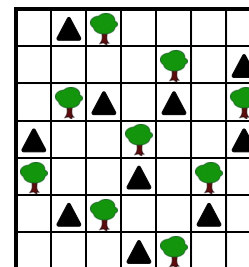
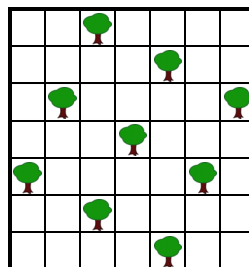


30 points

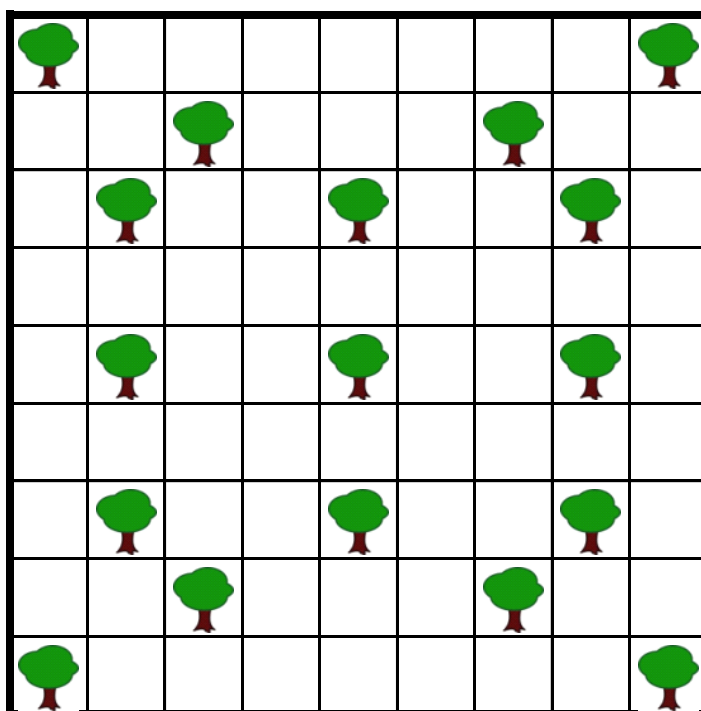
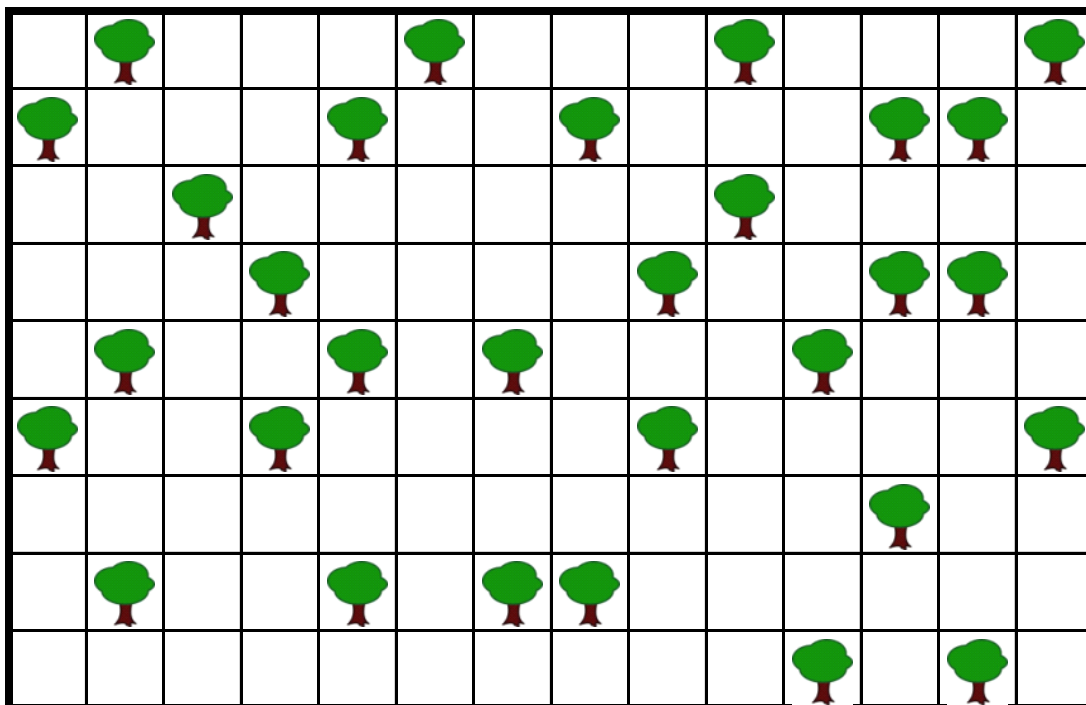
FRIENDLY CAMPERS

Locate tents in the grid so that they don't touch, not even diagonally. Numbers outside the grid indicate how many tents are located in the corresponding row/column. Each tree has to be connected to exactly one tent in one of its four (horizontally and vertically) neighbouring cells.

Note: there is one tree in the grid which has to be connected to two tents (also not touching, not even diagonally)!



15 points



2

15 points

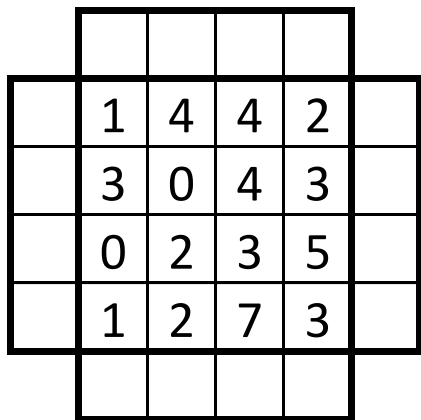
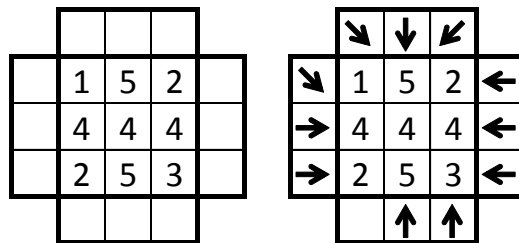
3

2

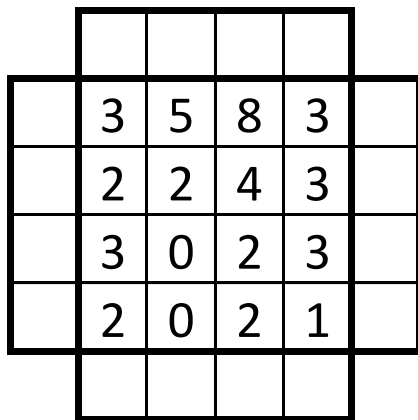
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MISSING ARROWS

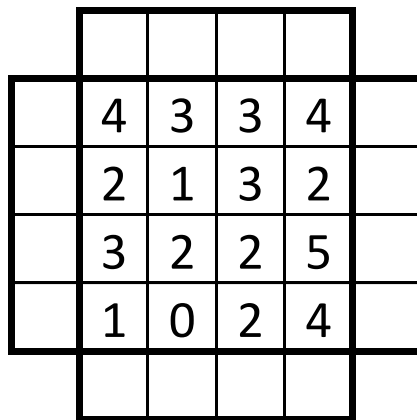
Place arrows into cells around the grid, pointing in one of the eight possible directions (horizontally, vertically or diagonally), so that each arrow points towards the grid with numbers. Each number in the grid indicates how many arrows are pointing at that number. Note: some cells around the grid will remain empty!



5 points



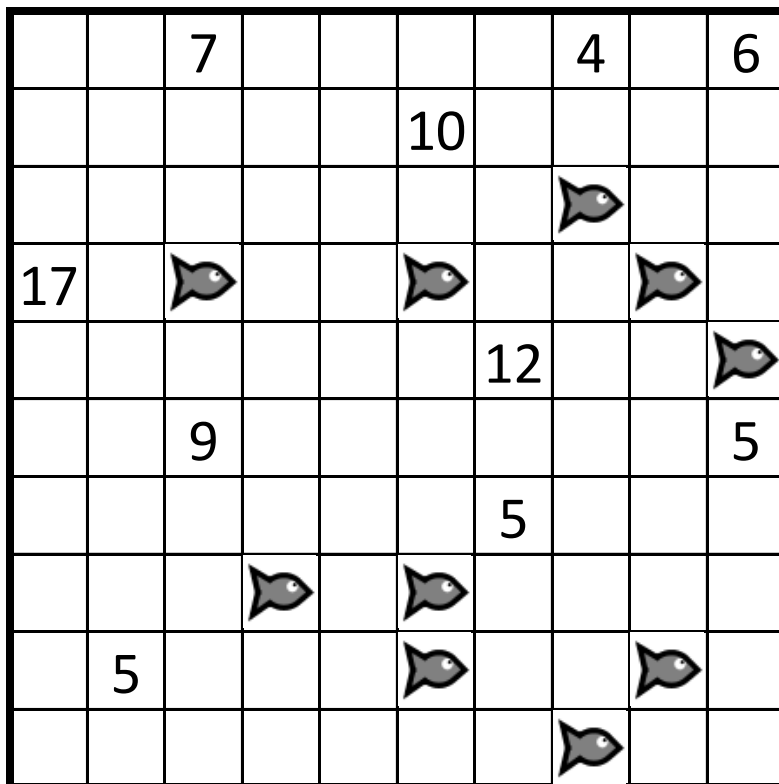
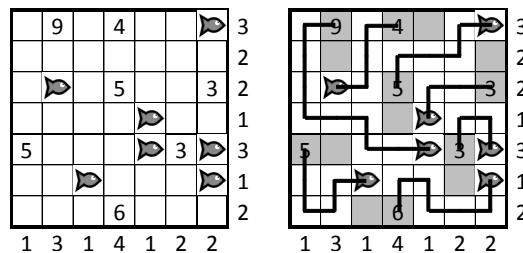
5 points



5 points

FISHERMEN

Place boats (rectangles of size 1x2 cells) in the grid so that no two boats touch each other, not even diagonally. Each boat has to contain a number which represents a fisherman (all numbers are already written). Draw a line starting from each fisherman so that each fisherman catches a different fish with a line whose length is indicated by the fisherman's number. The lines cannot cross boats and they cannot cross or overlap each other. Numbers outside the grid indicate how many cells are occupied by boats in the corresponding row/column. Every cell in the grid has to be used.

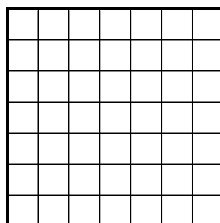


45 points

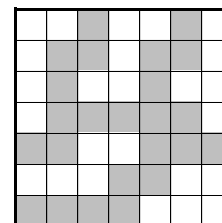
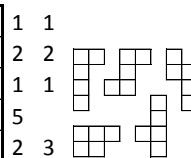
1 1

WHITE PENTAMINO

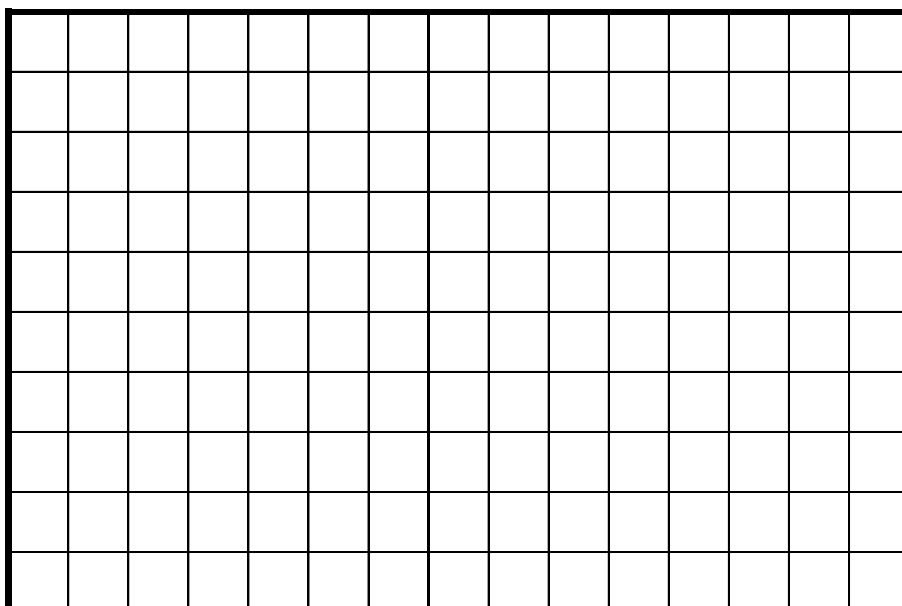
Paint some cells in the grid black. Numbers outside the grid indicate the length of the sequences of connected black squares in the corresponding row/column, but not in the order they appear. All the remaining white cells form twelve different pentaminoes (5 in the example). The pentaminoes do not touch each other, not even diagonally. They can be rotated, but not mirrored.



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

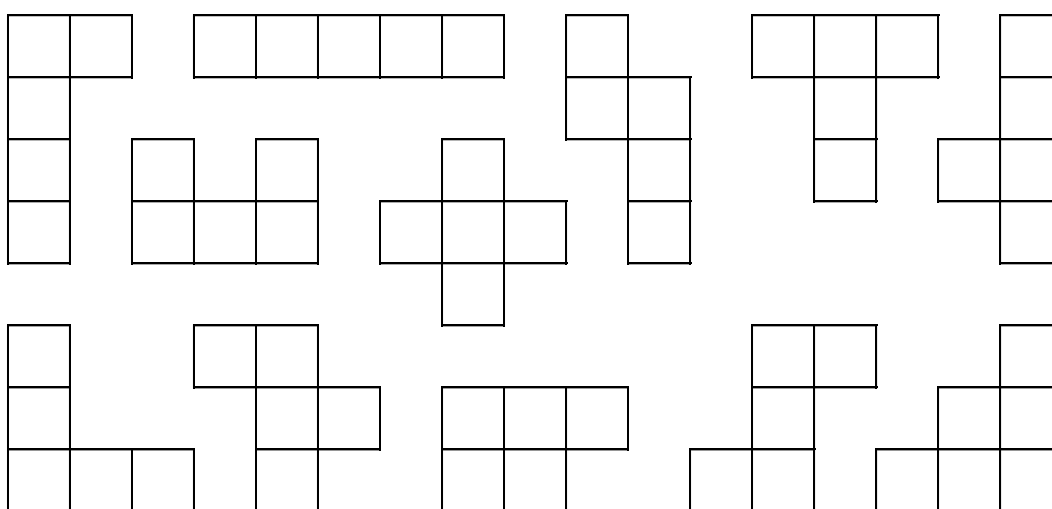


1 1 1 1 5 2 1
1 4 1 2 2
2



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

1 2 1 1 1 3 1 1 9 1 2 1 9 1 2
2 4 2 1 2 5 1 5 1 2 3 2 2
3 4 3 1 2 4 4
1



70 points

TAPA

Paint some squares black to create a continuous wall. Number(s) in a square indicate(s) the length of black cell blocks on its neighbouring cells. If there is more than one number in a square there must be at least one white cell between the black cell blocks. Painted cells cannot form a 2x2 square anywhere in the grid. There are no wall segments on cells containing numbers. Question marks must be replaced with even numbers.

?			1	3	
	??				?

2			1	3	
X			X		
				X	
	X				
	2	2		X	2

			??						?
							?		
	??								
								??	
?				??	??				
				??	??				?
	??								
								??	
			??						
?						??			

60 points

FENCES

Draw a single closed loop in the grid by connecting horizontally and vertically neighbouring dots (not all dots have to be used by the loop). The loop cannot touch, cross or overlap itself. Each number in the grid indicates how many of the four cell's borders are used by the loop.

		3		1		
2			1		3	2
		3		1		2
1			1		0	
		3		1		
	1	1	2			1

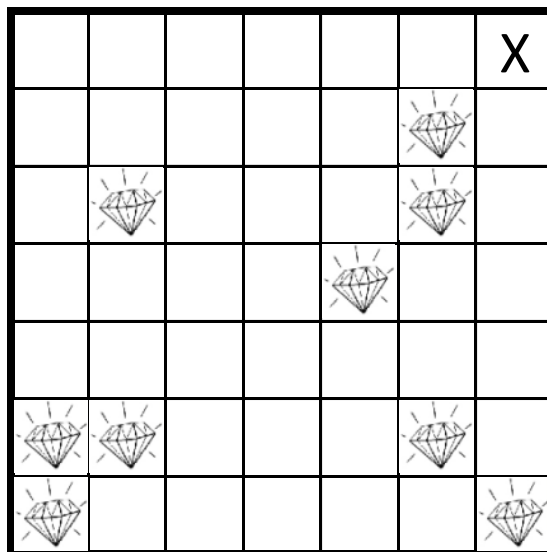
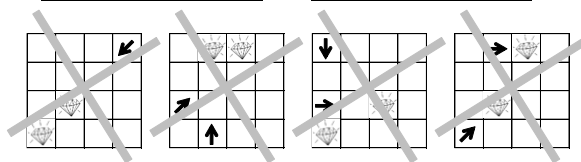
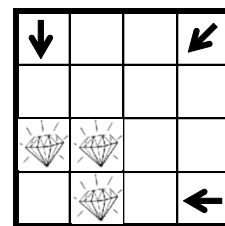
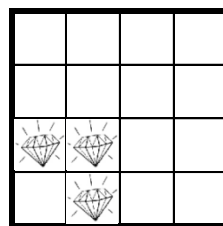
		3		1		
2			1		3	2
		3		1		2
1			1		0	
		3		1		
	1	1	2			1

				1	3			1	3
1	3	1	3			1	3		
				1	3			1	3
	1	3							
			1	3		1	3		
1	3							1	3
				1	3	1	3		
1	3	1	3						
					1	3	1	3	
1	3			1	3				

50 points

POINTING AT THE TREASURE

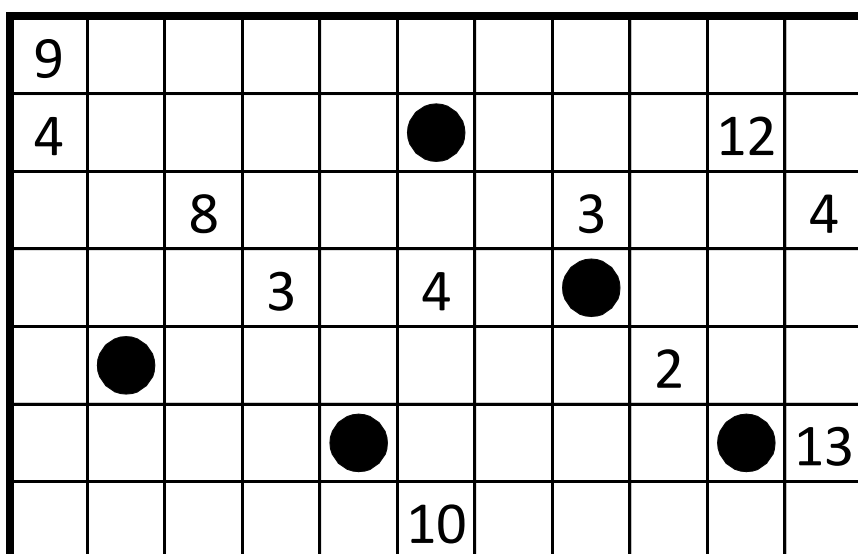
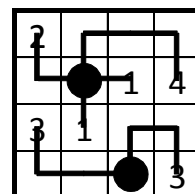
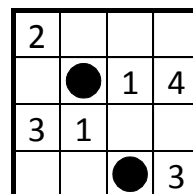
Put arrows in the grid, one arrow per cell at most, so that each arrow points at exactly one diamond and each diamond is pointed at by exactly one arrow. Arrows cannot touch each other, not even diagonally, and they also cannot touch the diamond that they are pointing at, not even diagonally (but they can touch other diamonds). An arrow cannot point at another arrow (not even through a diamond). Cells with sign "X" should not contain any arrow.



50 points

PIPES

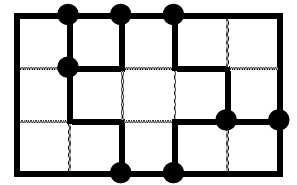
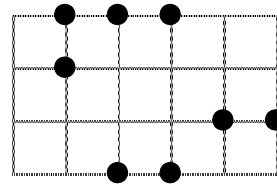
Connect each number in the grid with one gray circle, with a line that connects horizontally and vertically neighbouring cells. The lines cannot cross or overlap. Each number indicates the length of the line that connects that number with a circle. More than one number can be connected to the same circle. A line cannot pass through a cell with another number. All cells have to be used.



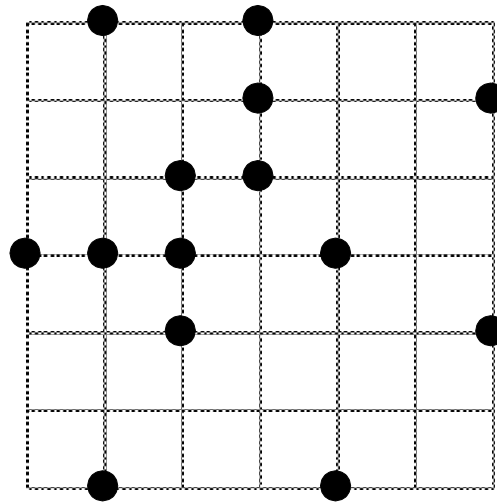
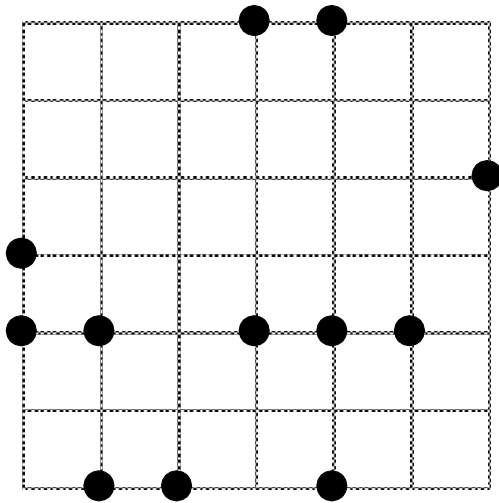
30 points

RUSSIAN FIELD

Divide the grid (along the grid lines) in n fields, different by size 1- n . All intersections where three segments of field borders meet are marked with circles in the grid. There are no intersections of four segments of field borders.



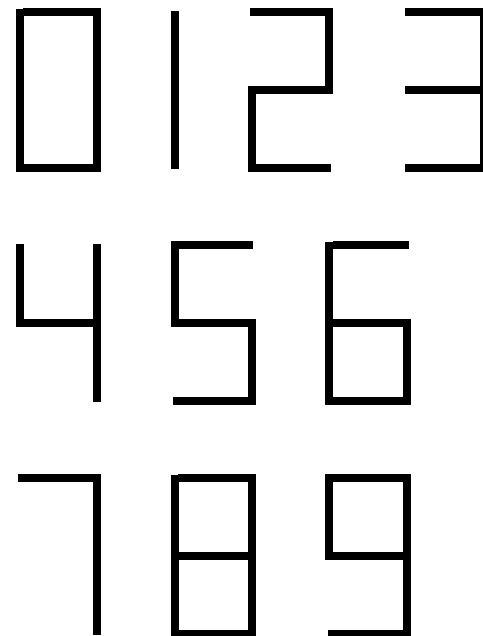
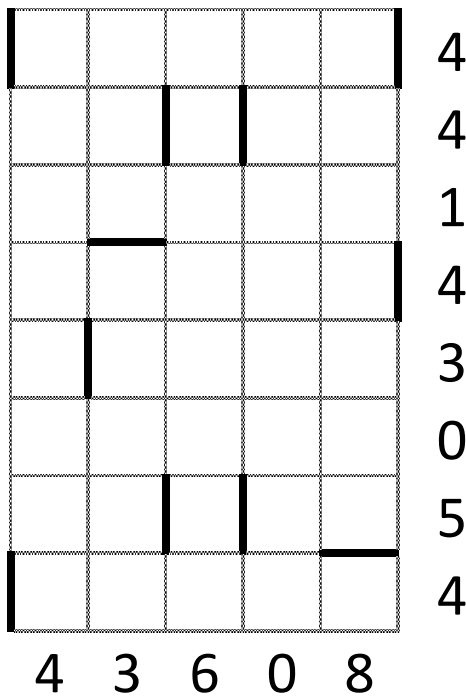
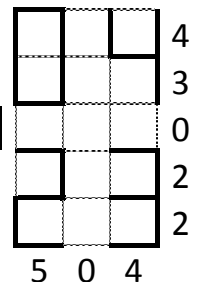
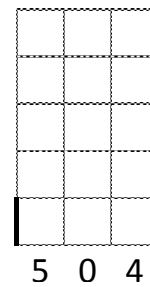
60 points



35 points

DIG IT?

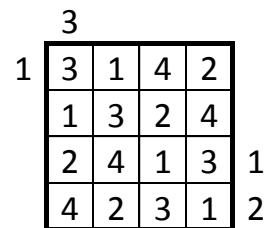
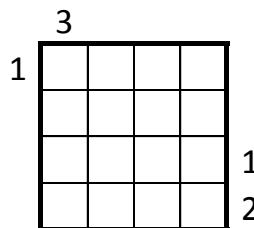
Draw nine digits from 0 to 9 (one of them is not used; 0-4 in the example), in digital form represented next to the grid, by connecting horizontally and vertically neighbouring dots. Digits cannot touch each other, not even diagonally. Digits cannot be rotated and/or mirrored. Numbers next to the grid indicate how many lines cross the corresponding row/column. Any line already drawn must be a part of a digit.



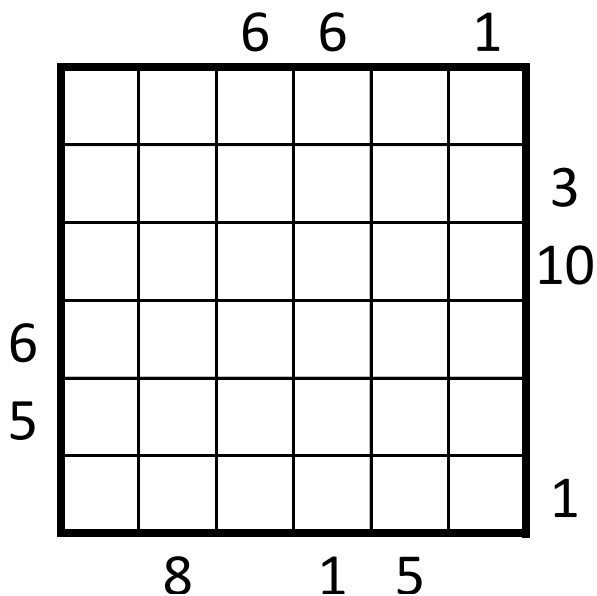
55 points

SAO PAULO

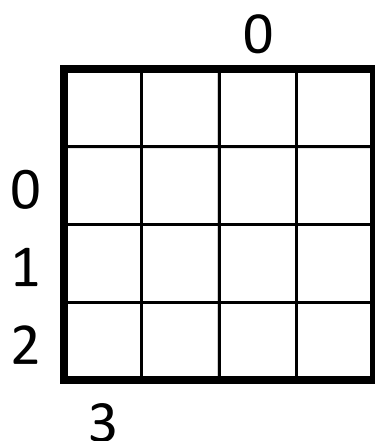
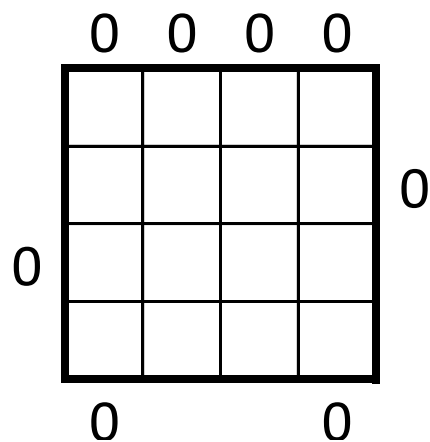
Place numbers (representing skyscrapers) 1-n in the grid, so that no number is repeated in any row or column. Each number indicates the height of the skyscraper and the higher ones hide the smaller ones behind them. Numbers outside the grid indicate how many skyscrapers are visible from the corresponding direction. Numbers outside the grid represent the sum of all invisible skyscrapers placed in between the visible ones.



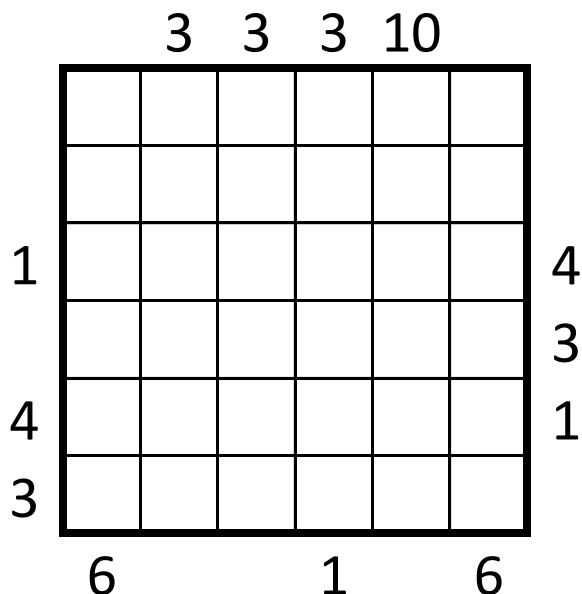
25 points



15 points



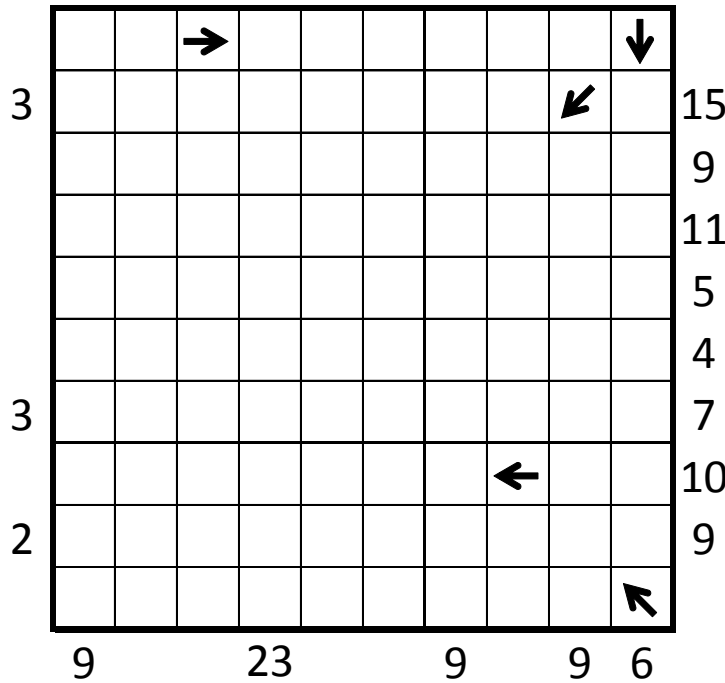
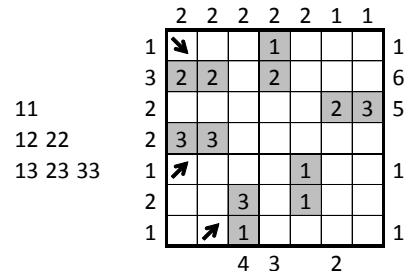
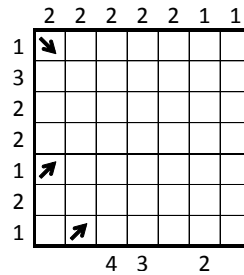
5 points



25 points

DOMINO ARROWS

Place a complete domino set (given next to the grid) in the grid so that no two dominoes touch each other, not even diagonally. Each arrow in the grid points at exactly three different dominoes and each domino tile in the grid is pointed at by only one arrow. Numbers above and on the left indicate how many cells are occupied by dominoes in the corresponding row/column. Numbers below and on the right indicate the sum of numbers in the corresponding row/column.

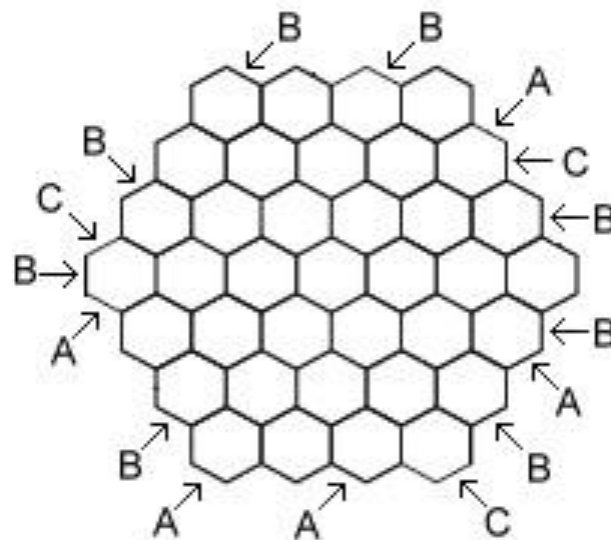
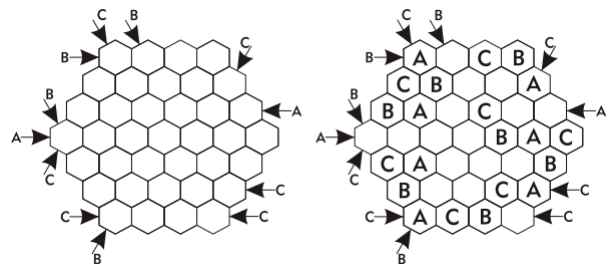


11
12 22
13 23 33
14 24 34 44
15 25 35 45 55

75 points

ABC HEXA NOT THE FIRST

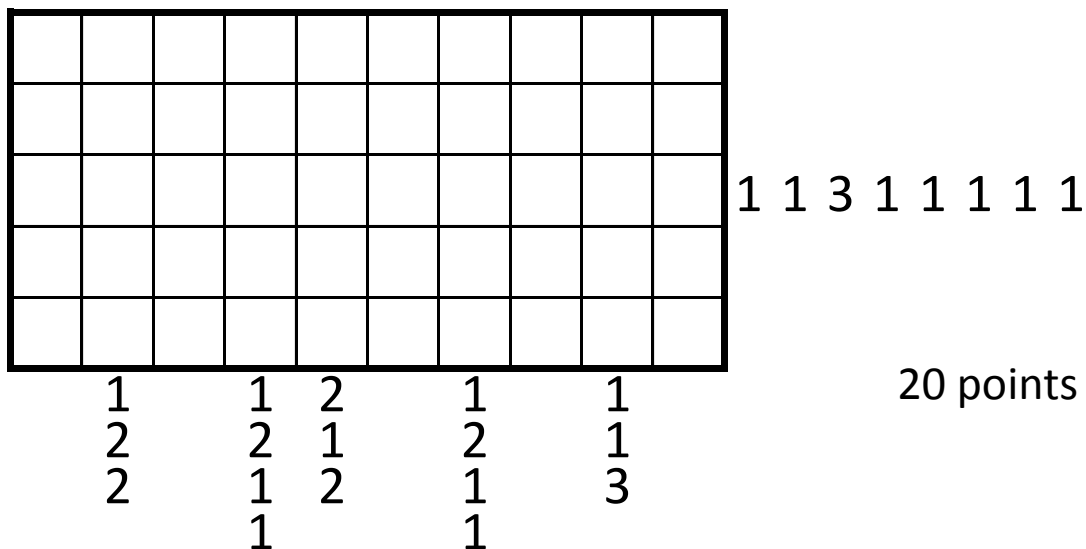
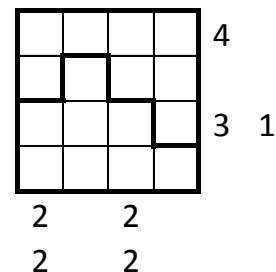
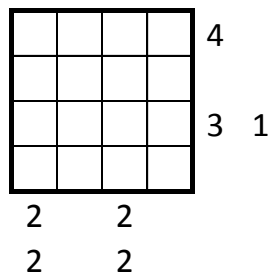
Write letters A, B and C in some hexagons in the grid so that each row in all three directions contains each letter exactly once. Letters outside the grid indicate NOT THE FIRST letter seen in the corresponding direction of the arrow.



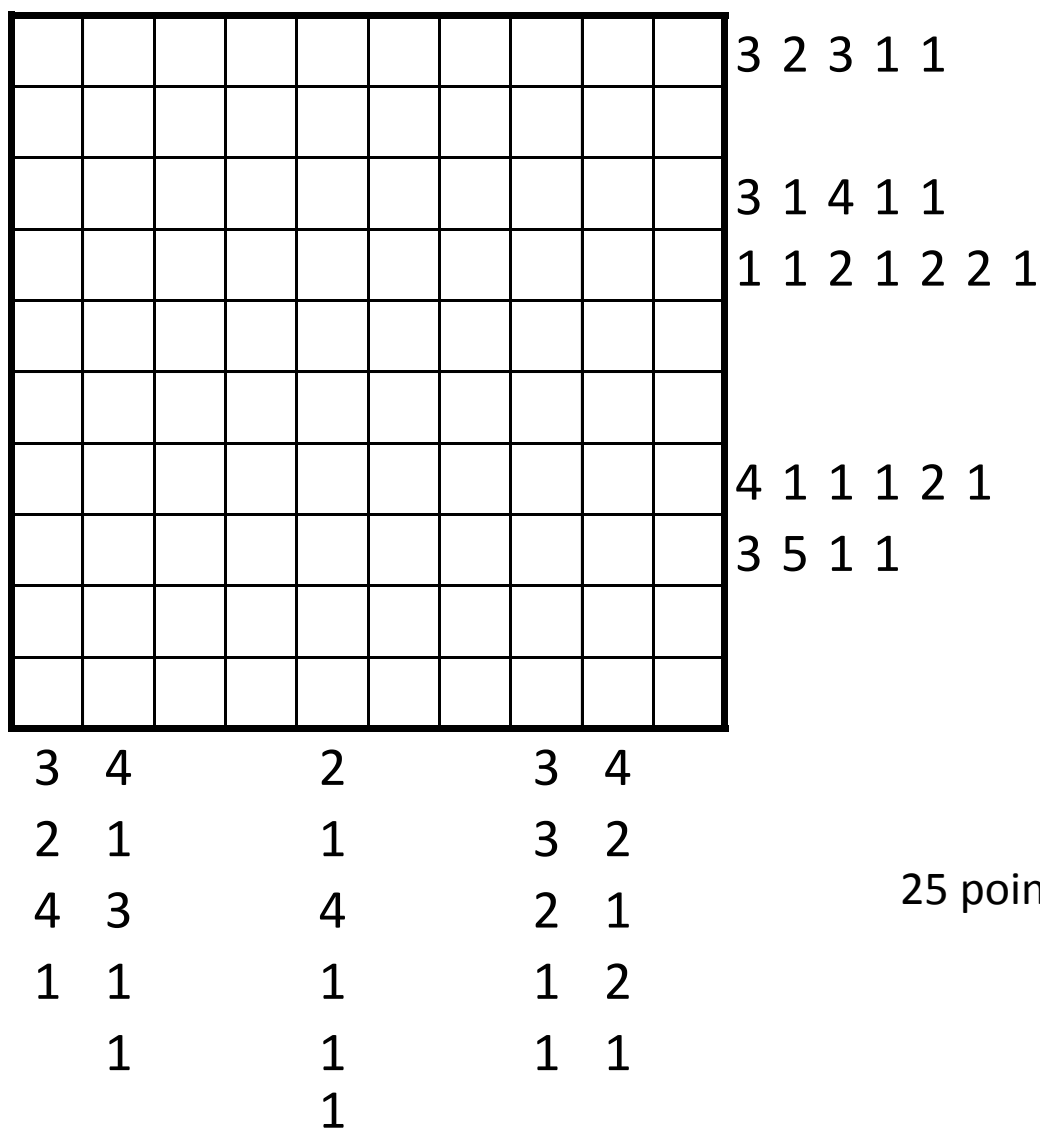
30 points

FARMS

Divide the grid along the grid lines in 10 farms (2 in the example) of the same size but different shape. Rotated and mirrored shapes are considered the same. Numbers outside the grid indicate the size of sequences of connected cells (belonging to the same farm) in the order they appear in the corresponding row/column.



20 points



25 points