

NAME:

POINTS:



11TH 24 HOURS PUZZLE CHAMPIONSHIP

26-28 NOVEMBER 2010

HOTEL AMADEUS

BUDAPEST

PUZZLES BY:

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The puzzle file will not contain examples. Please keep the instructions during the test.

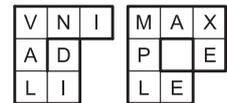
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|--|--------------------|
| 1. Packing for 10 th 24 HPC | 65 points |
| 2. Unique Location | 10+10 points |
| 3. Match Math | 10 points |
| 4. Matchmaker Tapa | 40/45/50/65 points |
| 5. Kapama | 60 points |
| 6. 4x4 Minesweeper | 25 points |
| 7. Deformable Masyu | 20 points |
| 8. Araf | 60 points |
| 9. More Alternative Loop | 45 points |
| 10. Crisscross Crash | 85 points |
| 11. Matchmaker <i>Rotator</i> | 35/35 points |
| 12. Retrigrade Battleships | 10 points |
| 13. Puzzle | 15 points |
| 14. Watches? | 25 points |
| 15. Finnish Snake | 25 points |
| 16. 1-2 Snake | 65 points |
| 17. Spiral Snake | 70 points |
| 18. Pathfinding Snake | 30 points |
| 19. Gapped Kakuro | 100 points |



1. Packing for 10th 24 HPC (65 points)

Place the names in the grid. Each cell should contain a single letter. Each name will be a snakelike strip of squares connected horizontally or vertically that does not turn back on itself (see examples of invalid snakes). Exactly two letters are given for each name. Some words contains special characters and all these special letters are given as clues.

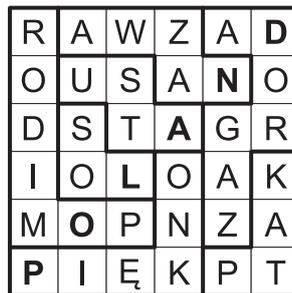
Invalid examples



* Locating all strips is enough for getting points (see example).



LOS
 NAZWA
 PIĘKNO
 POMIDOR
 PTAK
 USTA
 ZAGRODA

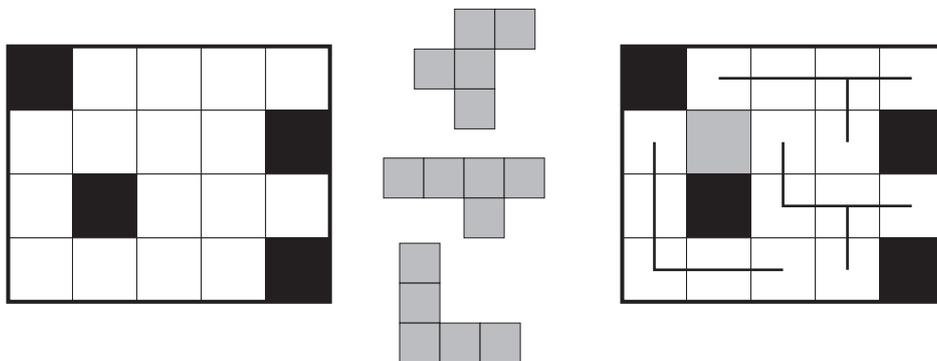


or



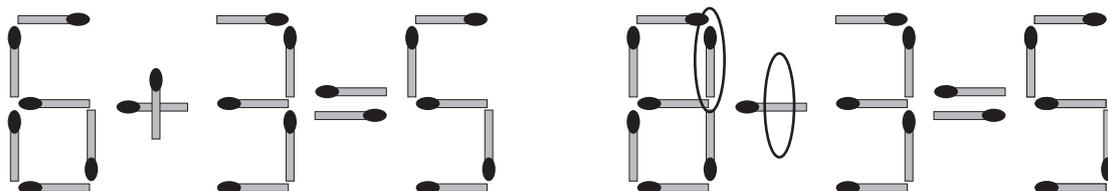
2. Unique Location (10+10 points)

Black out one square, so that there remains only one way to locate the given pentominoes into the grid. Pentominoes may be rotated and/or reflected.



3. Match Math (10 points)

Move one match to correct the given equation.





4. Matchmaker Tapa (40/45/50/65 points)

Your goal is to solve four puzzles. You're given five different grids and five different instructions. Match the grids with the instructions and solve the puzzles. One grid and one instruction will be unused. Any grid may have several solutions for any type, but the four puzzles can all be solved only in one way.

Partial points will be given only for every correct grid which is part of the complete solution. First completed grid: 40 points, and the following ones 45-50-65 respectively.

Elimination Tapa: Eliminate one digit in every clue and solve the puzzle. Paint some cells black to create a continuous wall. Number/s in a cell indicate the length of black cell blocks on its neighbouring cells. If there is more than one number in a cell, there must be at least one white cell between the black cell blocks. Painted cells cannot form a 2x2 square or larger. There are no wall segments on cells containing numbers.

Knapp Daneben Tapa: Paint some cells black to create a continuous wall. Number/s in a cell indicate the length of black cell blocks on its neighbouring cells. If there is more than one number in a cell, there must be at least one white cell between the black cell blocks. Painted cells cannot form a 2x2 square or larger. There are no wall segments on cells containing numbers. All given numbers are wrong. The correct number is either 1 higher or 1 lower, meaning a 1 can possibly turn into a zero.

Pata: Paint some cells black to create a continuous wall. Number/s in a cell indicate the length of white cell blocks on its neighbouring cells. If there is more than one number in a cell, there must be at least one black cell between the white cell blocks. Painted cells cannot form a 2x2 square or larger. There are no wall segments on cells containing numbers. The cells with clues count as white cells.

Tapa: Paint some cells black to create a continuous wall. Number/s in a cell indicate the length of black cell blocks on its neighbouring cells. If there is more than one number in a cell, there must be at least one white cell between the black cell blocks. Painted cells cannot form a 2x2 square or larger. There are no wall segments on cells containing numbers.

Tapa Filler: Create a continuous wall of digits; at most one digit per cell. Filled-in cells cannot form a 2x2 square. Number/s in a cell indicate/s all digits on its neighbouring cells; each digit appearing as many times as itself. In the case of identical-digit groups around a clue cell, groups cannot be edge-to-edge neighbours (e.g., the 2-2 clue on the example).

Pata:

Elimination Tapa:

	2 ₃		
			1 ₅
1 ₃	2 ₂		
1 ₃		2 ₃	2 ₂

Knapp Daneben Tapa:

1			2 ₄
	3 ₃		1 ₃

Pata:

1 ₁				
			1 ₁	1 ₁
	2 ₂		1 ₂	1 ₂
				2
	1 ₁	1 ₁		
				1

Tapa:

2			1 ₃
2 ₂			2

Tapa Filler:

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

	3		
			5
1 ₂			
1			2 ₂

2			1 ₃
2 ₂			2

1 ₁				
			1 ₁	1 ₁
	2 ₂		1 ₂	1 ₂
				2
	1 ₁	1 ₁		
				1

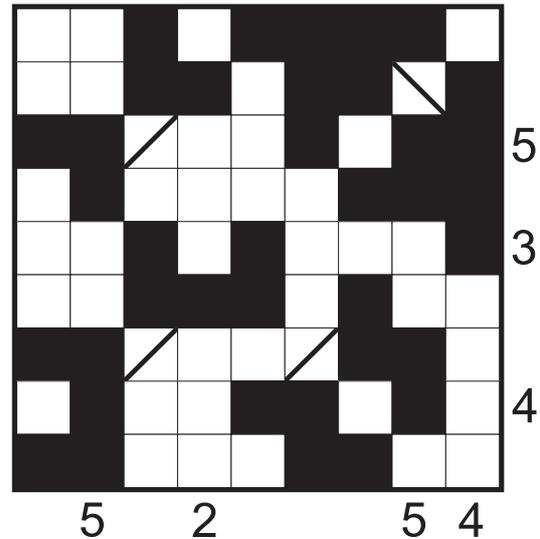
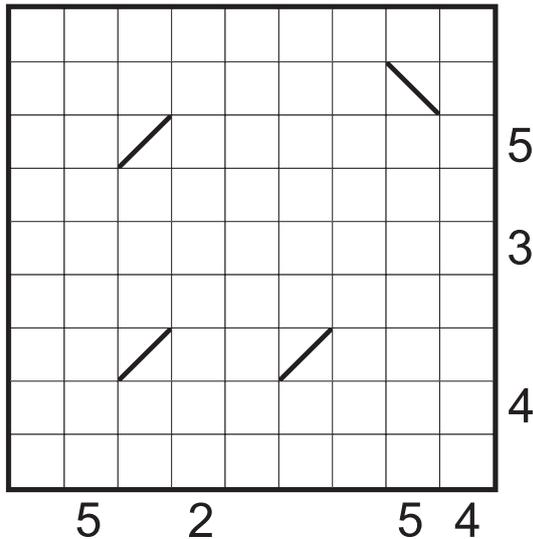
2			1 ₃
2 ₂			2

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



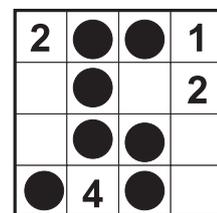
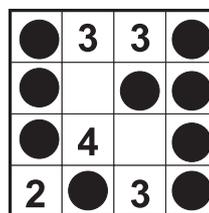
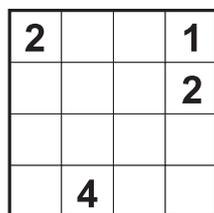
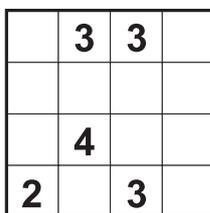
5. Kapama (60 points)

Blacken some cells to create twin shapes. Each twin consists of two identical pieces connected with a line. Pieces of a twin are symmetrical with their line. Pieces cannot touch from the sides. The numbers outside the grid indicate the number of blackened cells in the corresponding row/column.



6. 4x4 Minesweeper (25 points)

Place some mines in each diagram so that the numbers inside the grid indicate the number of mines in their neighbouring (including diagonal neighbours) cells. When all four puzzles are solved, every single coordinate should contain exactly one mine. The example is for only two grids.

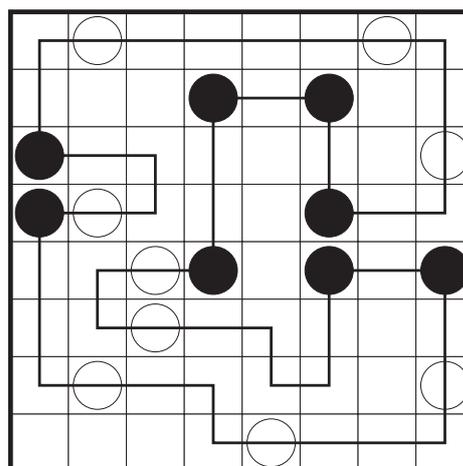
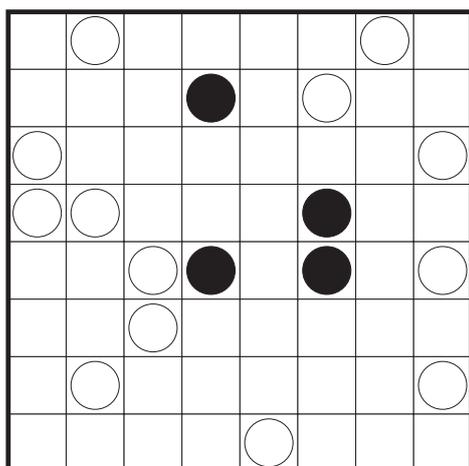




7. Deformable Masyu (20 points)

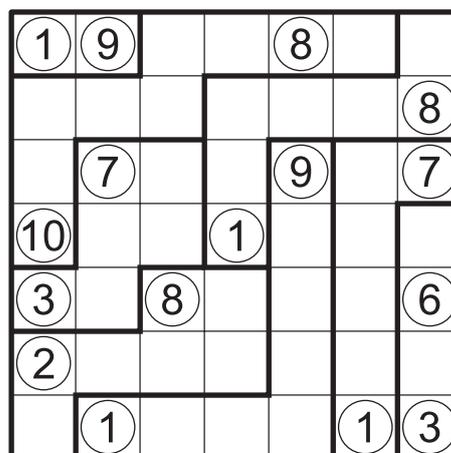
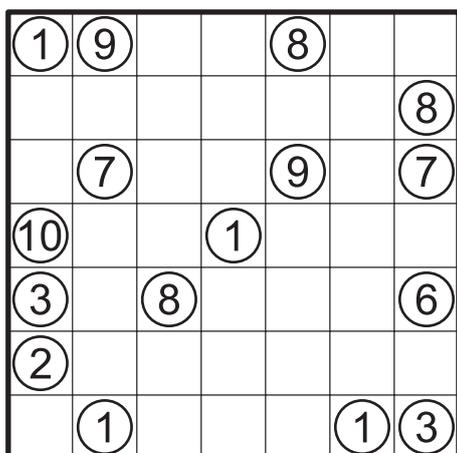
Moving between edge-to-edge neighbouring cells, draw a closed path that passes through every circle and doesn't cross itself. The path must turn at every black circle, but can not turn immediately before or after; and the path can not turn at any white circle, but must turn immediately before and/or after.

You are allowed to blacken any number of the given white circles, deforming them into black circles.



8. Araf (60 points)

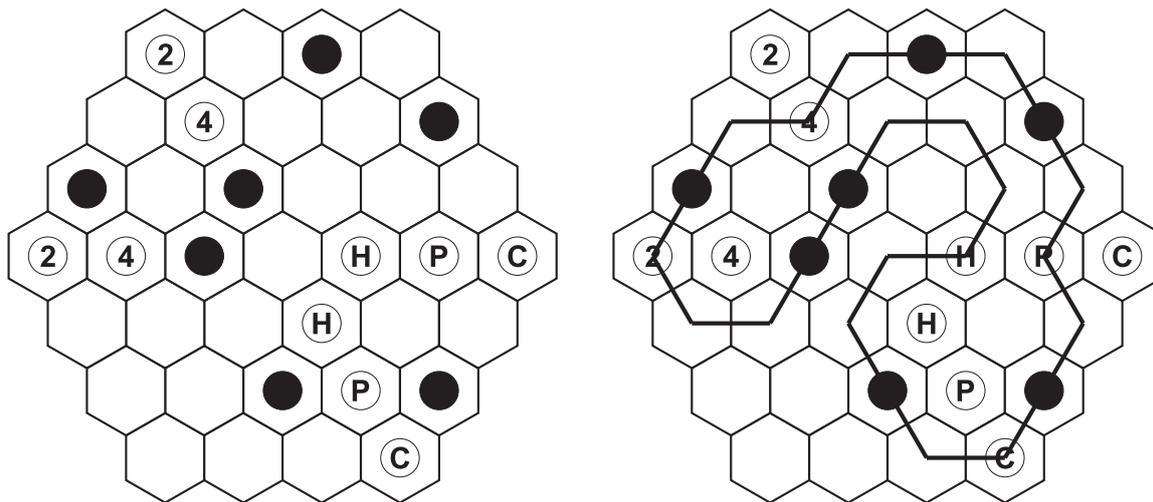
Divide the grid into some regions, formed of adjacent squares. Each region should contain exactly two given numbers. The size of each region should be a value (in unit squares) between the two numbers inside that region.





9. More Alternative Loop (45 points)

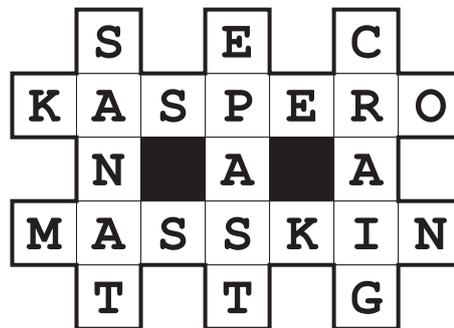
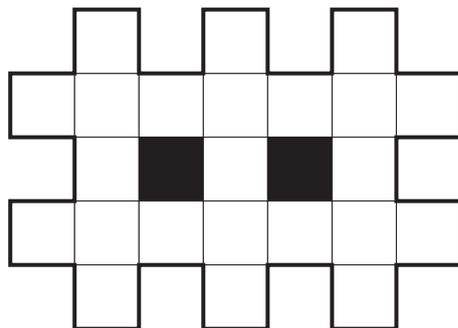
Draw a single closed noncrossing loop, connecting the centers of adjacent cells and only making turns of 120°. Loop should pass through each black circle and goes straight passing through the black circles. For each pair of identical letters, one is visited by the loop and the other is not.



10. Crisscross Crash (85 points)

Enter the following words in the crisscross diagram reading Across or Down, one letter in each cell. When two or more entries share a row or column, each must overlap the next by exactly one letter.

EP
 RO
 MASS
 PAST
 SKIN
 CRAIG
 KASPER
 SANAT



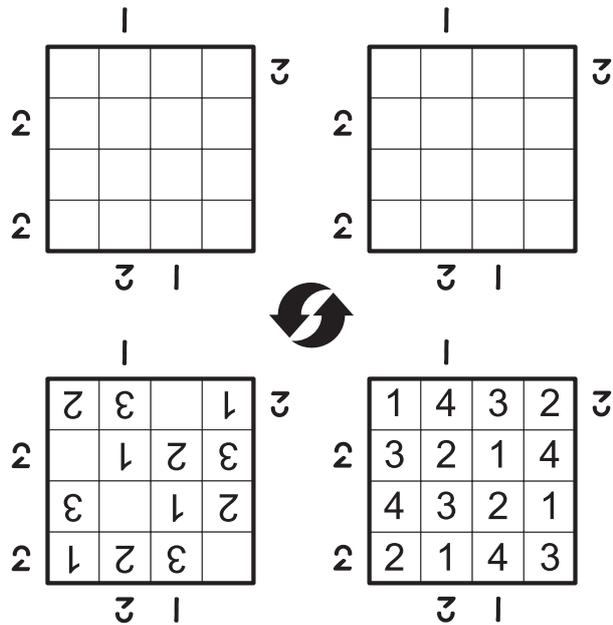


11. Matchmaker Rotator (35/35 points)

Given two grids are the same. Solve one, then turn the page upside down and solve the other. One view of the grid is a Skyscrapers puzzle, and the other one is a Gappy Skyscrapers puzzle. You should find out the correct views for each type and solve both.

A solved grid will receive points only if it is part of the complete solution.

Skyscrapers: Fill the grid with digits from 1 to 6 (1-4 for the example) so that each digit appears exactly once in each row and column. Each digit inside the grid represents a building with the height of the digit itself. Numbers outside the grid indicate the number of buildings that can be seen from the corresponding directions. Higher buildings block the view of lower buildings.

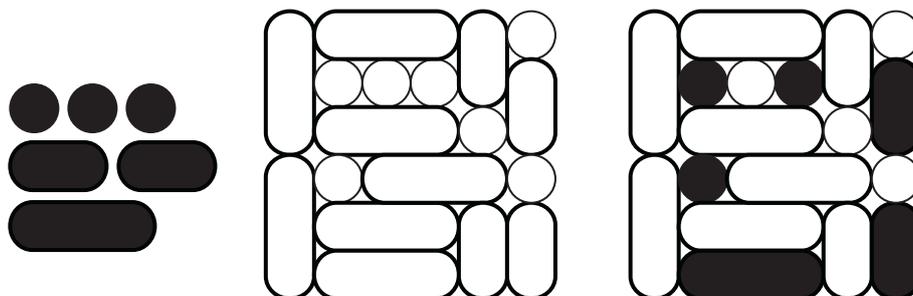


Gappy Skyscrapers: Follow Skyscrapers rules, except that there should be exactly one empty cell in each row and column. Use digits from 1 to 5 (1-3 for the example).

1234567890

12. Retrigrade Battleships (10 points)

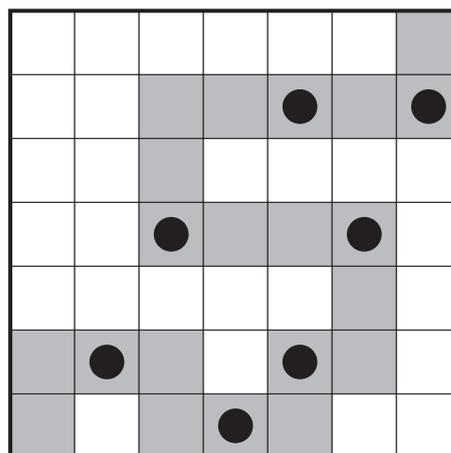
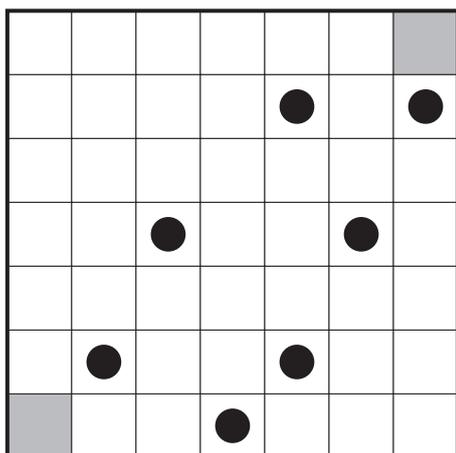
In this variation of the Battleship Puzzle, possible placements of the fleet is given. Ships are oriented horizontally or vertically and they don't touch each other, not even diagonally. There cannot be any ship segments on water marks.





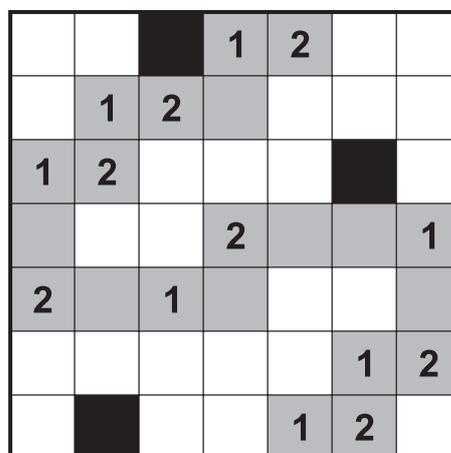
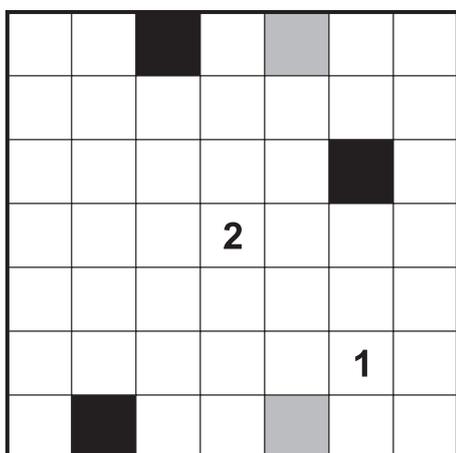
15. Finnish Snake (25 points)

Locate a 45 square long (21 for the example) snake in the grid, whose head and tail are given, without touching itself even at a point. All given circles must be part of the snake.



16. 1-2 Snake (65 points)

Locate a 45 square long (21 for the example) snake in the grid, whose head and tail are given, without touching itself even at a point. From some end of the snake to another the sequence 1-2-1-...-1-2 should be read. Every row/column should contain digits 1 and 2 exactly once, and all digits should be part of the snake. Some digits are already given. The snake cannot overlap the black cells.

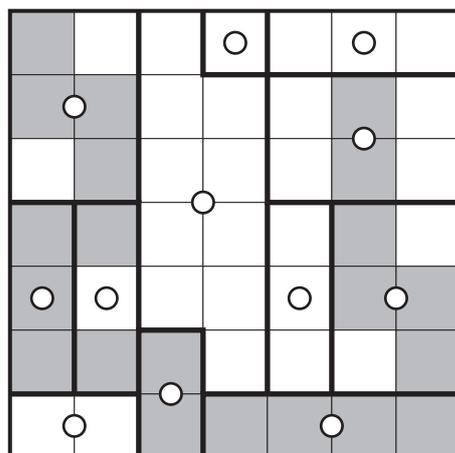
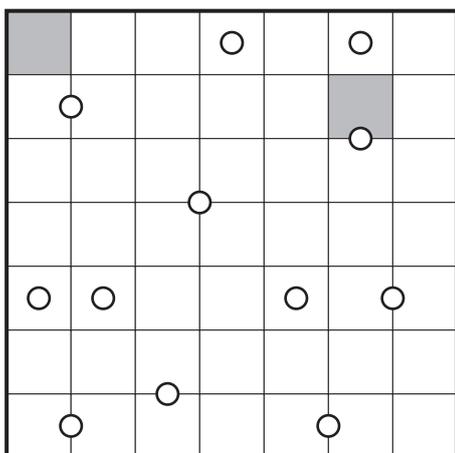




17. Spiral Snake (70 points)

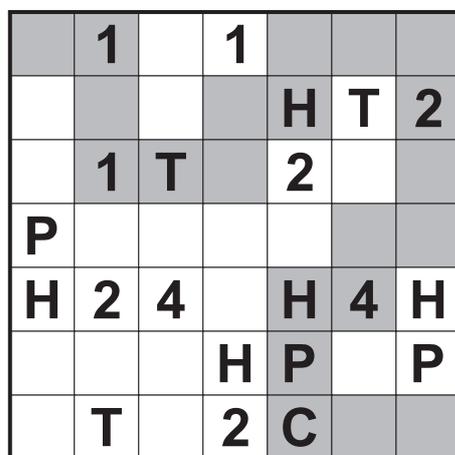
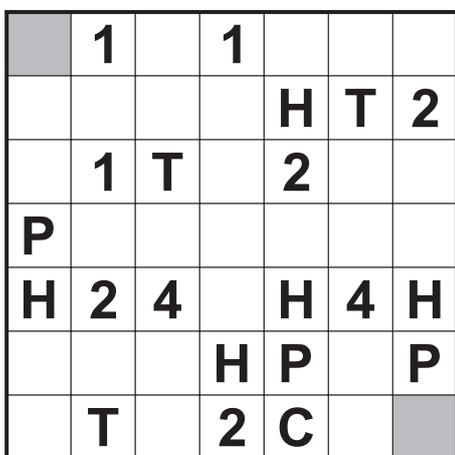
Locate a 45 square long (21 for the example) snake in the grid, whose head and tail are given, without touching itself even at a point. The grid should be divided into some areas with central symmetry, and all areas should be symmetrical with regard to the cells that are occupied/unoccupied by the snake. All the symmetry points of the regions are given as circles.

***Locating the snake is enough for getting points, you needn't draw all the regions.**



18. Pathfinding Snake (30 points)

Locate a 45 square long (21 for the example) snake in the grid, whose head and tail are given, without touching itself even at a point. From some end of the snake to another, the phrase "11TH 24 HPC" should be read only once.





19. Gapped Kakuro (100 points)

Enter a single digit from 1 to 9 into some cells so that the sum of digits in each Across entry equals the value given to the left of the entry, and the sum of digits in each Down entry equals the value given above the entry. No digit may be repeated within a single sum. Some cells may remain empty, and empty cells cannot be adjacent.

			14	7	11	10	11	10
	30							
	21	16						
		31	5					
19						3		
10						13	17	
8				11				
7			4					
26								

			14	7	11	10	11	10
	30		8	4	2	7	9	
	21	16	6	1		3	2	4
	9	31	5		5			
19	8	9		2		3		3
10	3	7			3	13	17	
8		8		6	11	4	6	1
7	1	6	4		1		3	
26		1		6		9	8	2