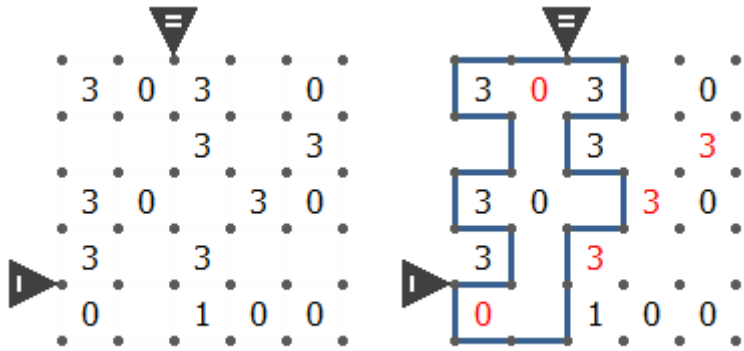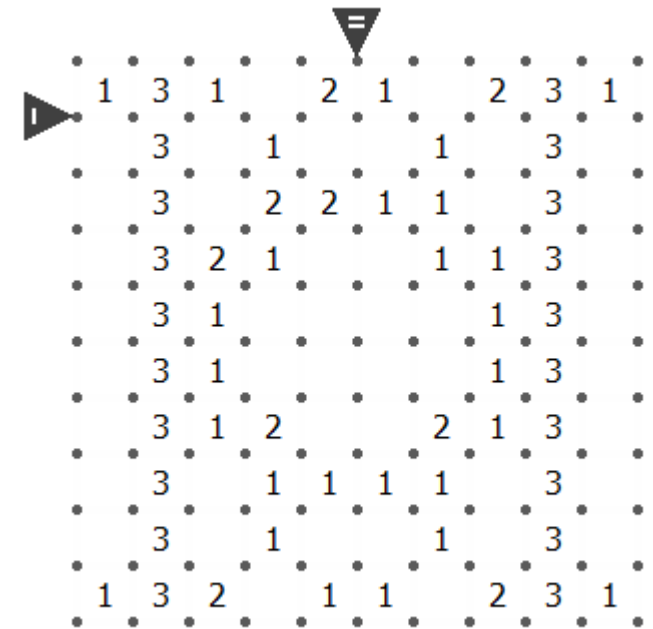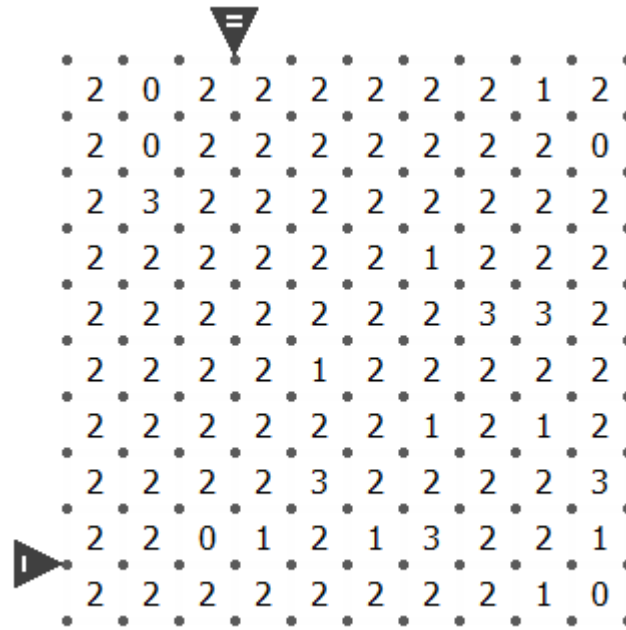## Liar Slitherlink 40+80 pts   FALSEHOOD 30+40 pts

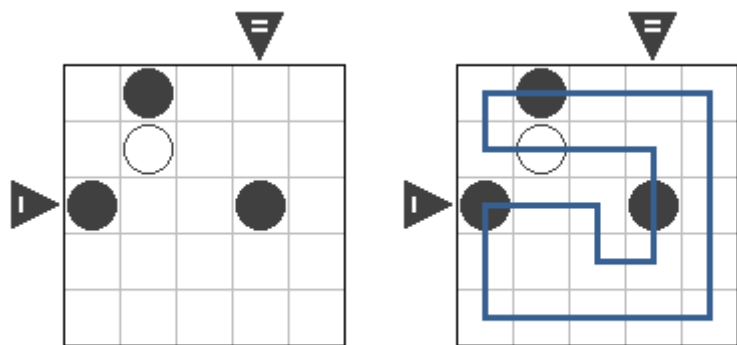Lengths of line segments. For the example: 1,12

Draw a single loop traversing some of the cells' edges such that it doesn't touch or cross itself. A number in a cell indicates the number of edges of that cell that belongs to the loop.

In addition, exactly one number from each row and column is false.

Lengths of line segments. For the example: 2,2

Draw a single loop passing some of the cells' centers. The loop must travel either vertically or horizontally at all times (no diagonal lines), and it may only turn on a cell's center.

The loop must pass all circles. Through a black circle, the loop must make a 90 degree turn, but it may not turn before and after the circle. Through a white circle, the loop must go straight without a turn, but it must turn either before or after the circle (or both).
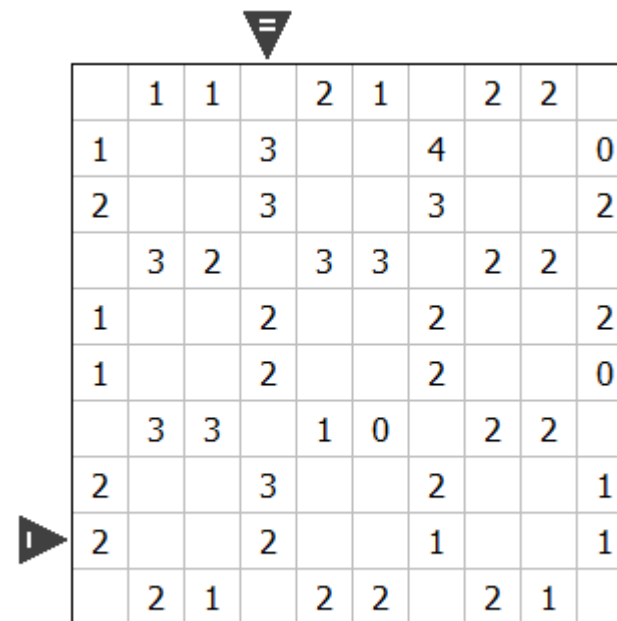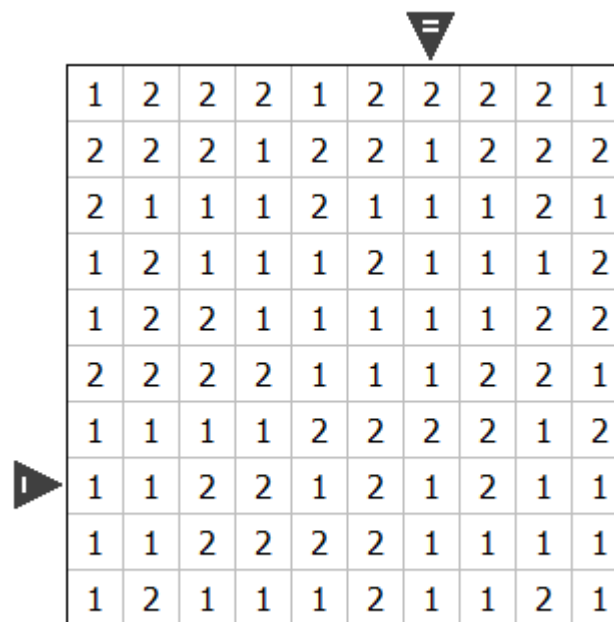
In addition, the color of every second circle passed by the loop is false (if it's black then it should be white, and vice versa).
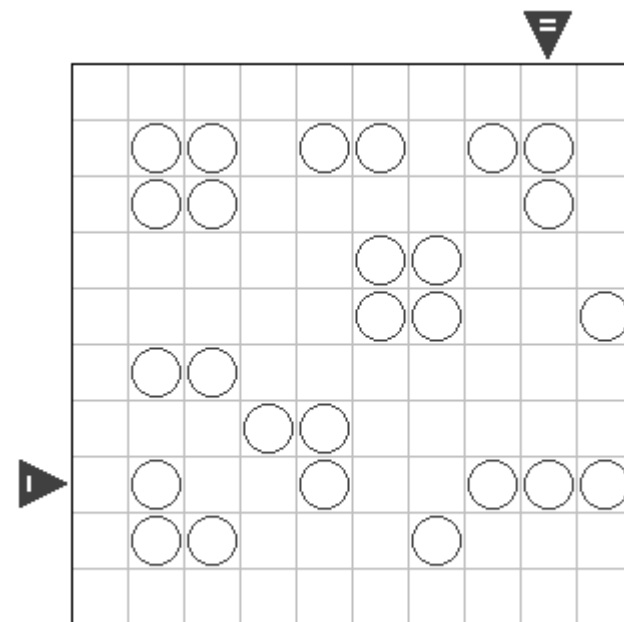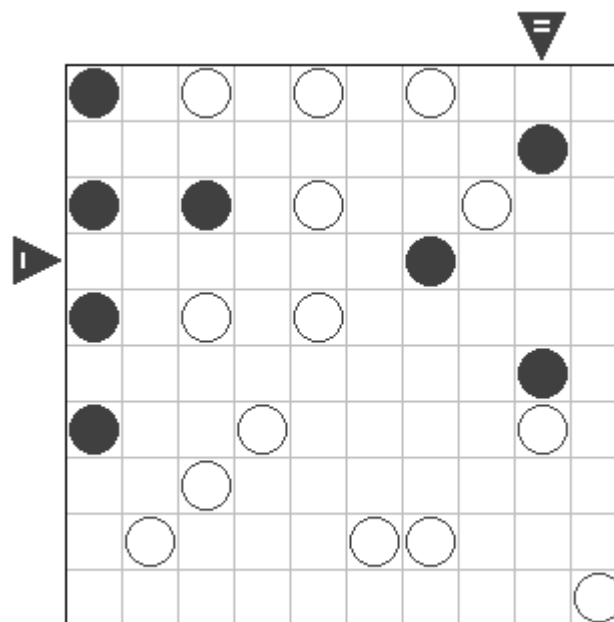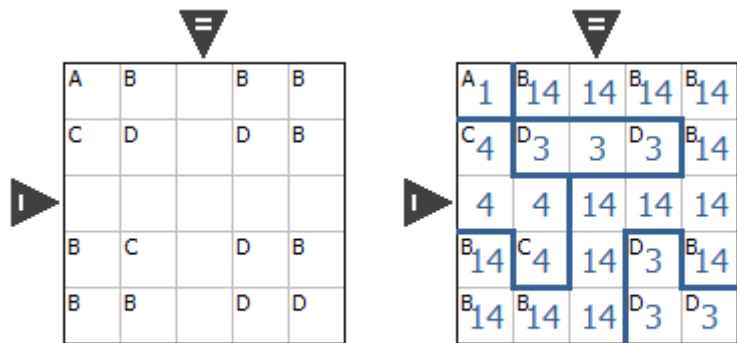
Lengths of consecutive white cells. For the example: 12,4
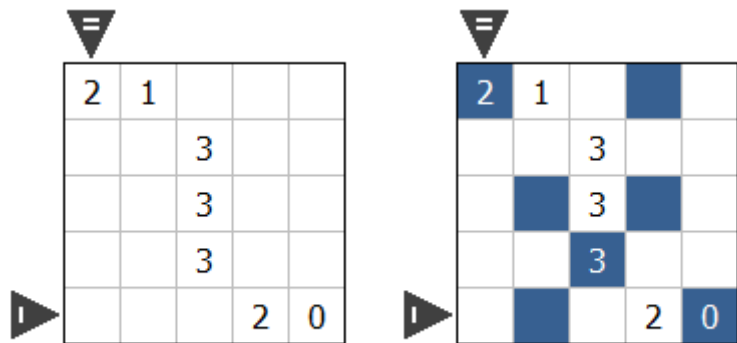
Shade some of the cells black. No two black cells may be adjacent orthogonally, and all white cells must form a single polyomino. A cell with a number represents the number of black cells in the cells that touch at least a point with itself, including the cell itself. If the cell is white, the number is true; if the cell is black, the number is false.

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

	1	1		2	1		2	2	
1			3			4			0
2			3			3			2
	3	2		3	3		2	2	
1			2			2			2
1			2			2			0
	3	3		1	0		2	2	
2			3			2			1
2			2			1			1
	2	1		2	2		2	1	

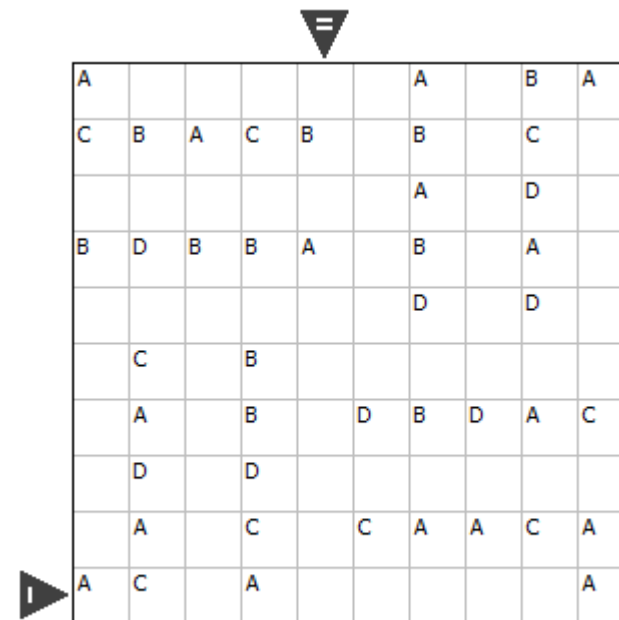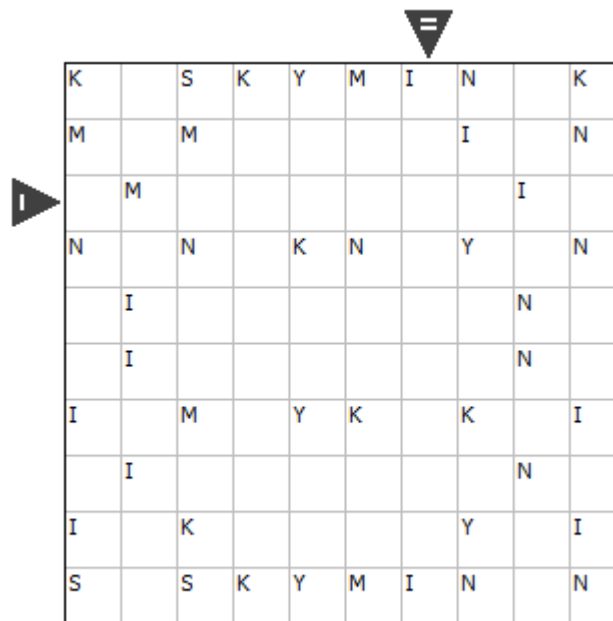## Cipher Fillomino 40+70 pts — AMBIGUITY 30+40 pts

Unit digits (last digits) of numbers. For the example: 44444,43444

Divide the grid into polyominoes such that no two polyominoes with the same size touch orthogonally. Fill each cell with the size of the polyomino it belongs to.
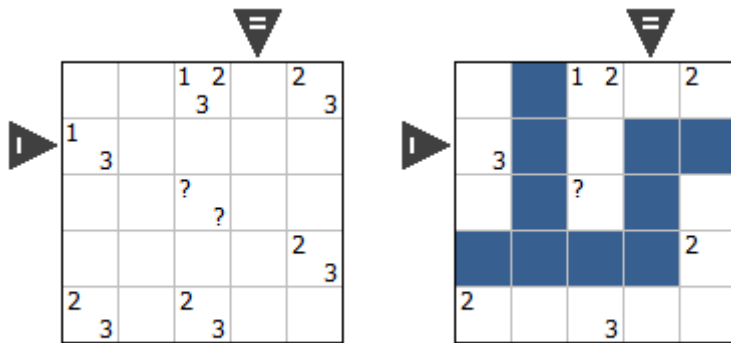
In addition, the numbers have been replaced by letters. Identical letters represent the same number and different letters represent different numbers.
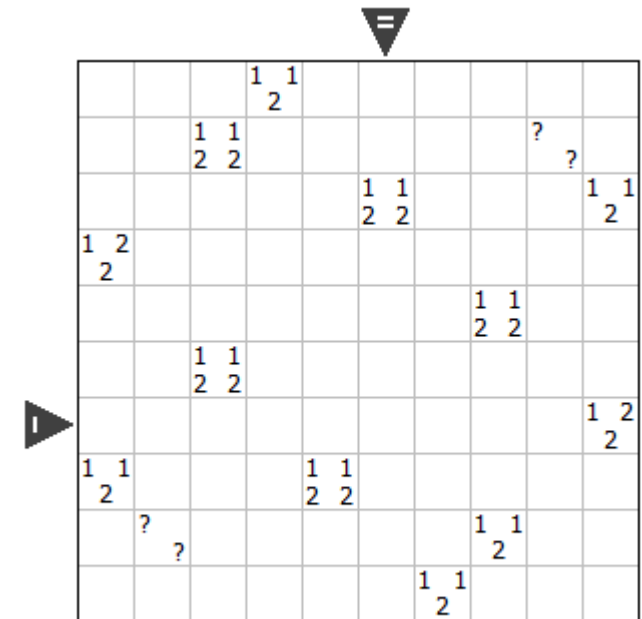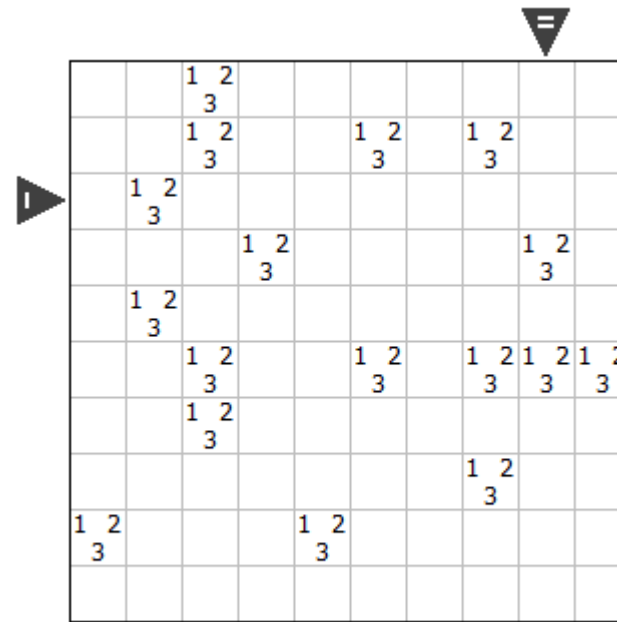
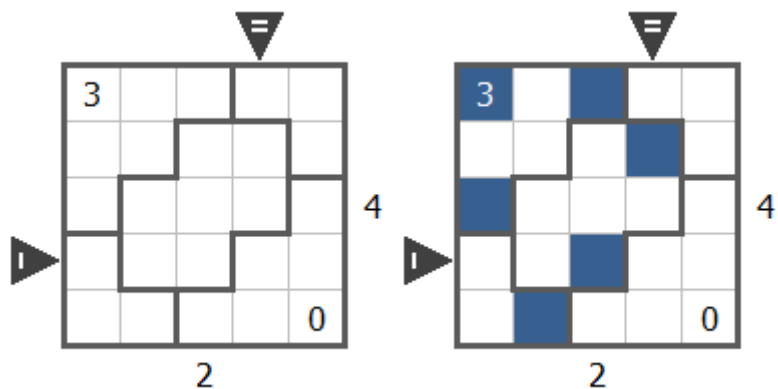Lengths of consecutive black cells. For the example: 12,3

Shade some of the cells black. The black cells must form a single polyomino; however, no 2x2 area may be all black. Cells that contain numbers may not be shaded black. A cell with some numbers represents the lengths of contiguous black cells in the cells that touch at least a point with itself. If the cell contains at least two numbers, the groups of black cells must be separated by at least one white cell.

In addition, each square with a given has one extra number. Which number should be removed is up to you to determine. Question marks indicate unknown numbers.

## Surveyors Heyawake 30+60 pts   AMBIGUITY 30+40 pts

Lengths of consecutive white cells. For the example: 22,13

Shade some of the cells black. No two black cells may be adjacent orthogonally, and all white cells must form a single polyomino. A contiguous line of white cells may not span over two or more region boundaries (this includes exiting a room and entering it again).

A cell with a number gives either the number of black cells in the region the cell is contained in (like Heyawake) or the number of black cells in the squares that share at least a point with it, including itself (like Minesweeper).

A number outside the grid gives either the number of black cells in the corresponding row/column (like Tents) or the length of some line of contiguous white cells bounded by either the grid's boundary or some black cell (like inverted Nonogram).

Battleships Yajilin 40+50 pts
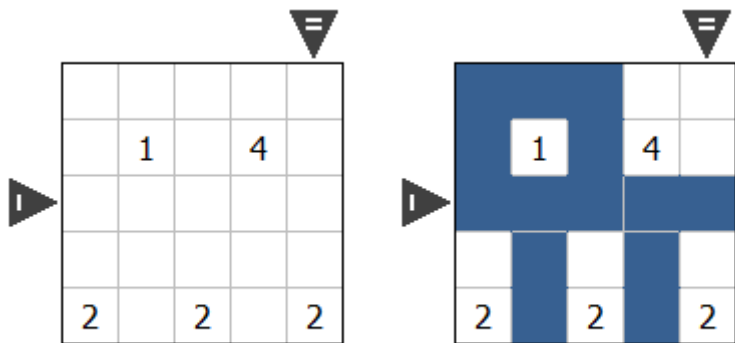
ANNEXATION 30+40 pts
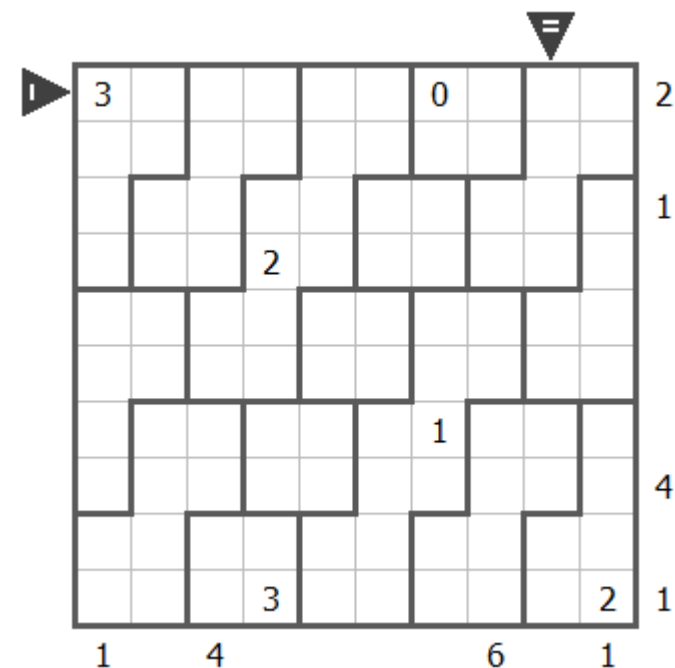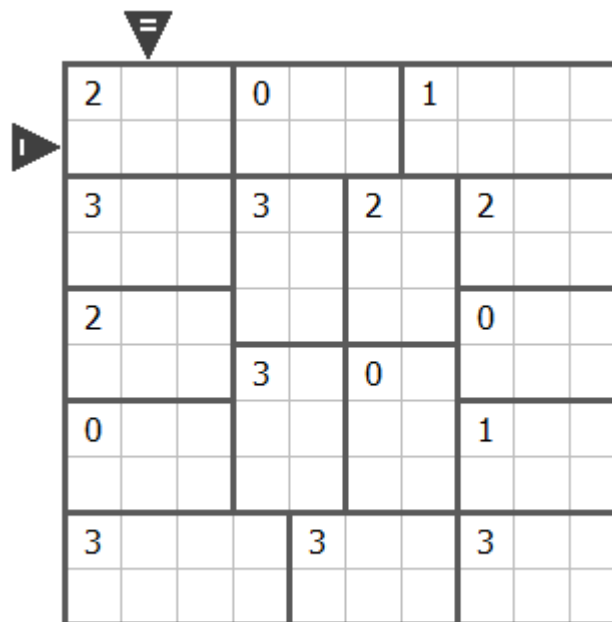
Lengths of line segments. For the example: 1,11
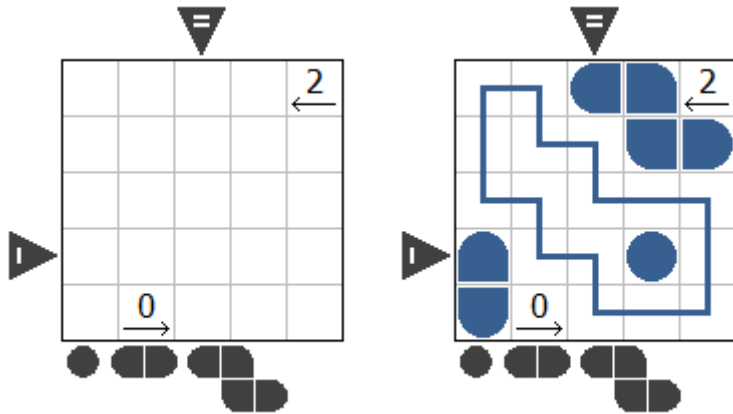
Put the given fleet into the grid. Ships may be rotated, but not reflected. No two ships may touch each other even diagonally, and no ship may cover a clue. Afterwards, draw a single loop passing the centers of all cells that neither are part of some ship nor contain a given. The loop must travel either vertically or horizontally at all times (no diagonal lines), and it may only turn on a cell's center. A clue tells the number of ship segments in the given direction up to the edge of the grid.

## Domino Nurikabe 30+50 pts   ANNEXATION 30+40 pts
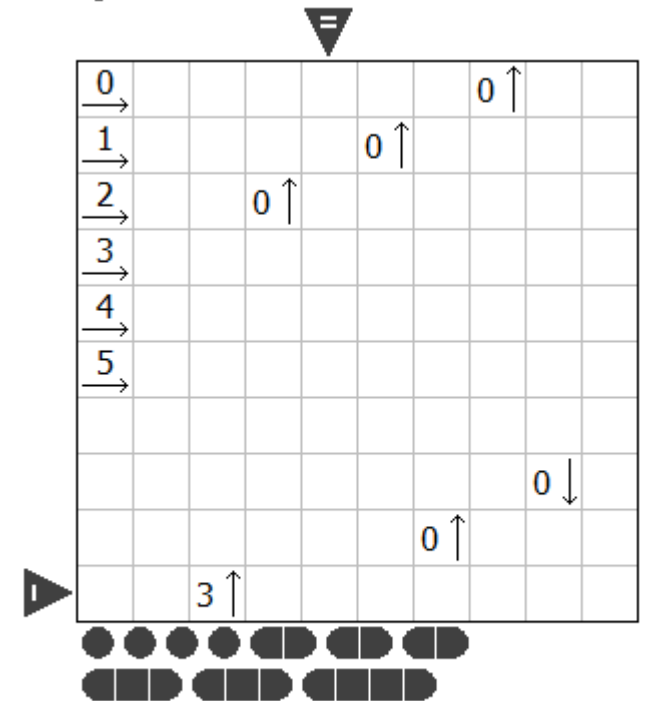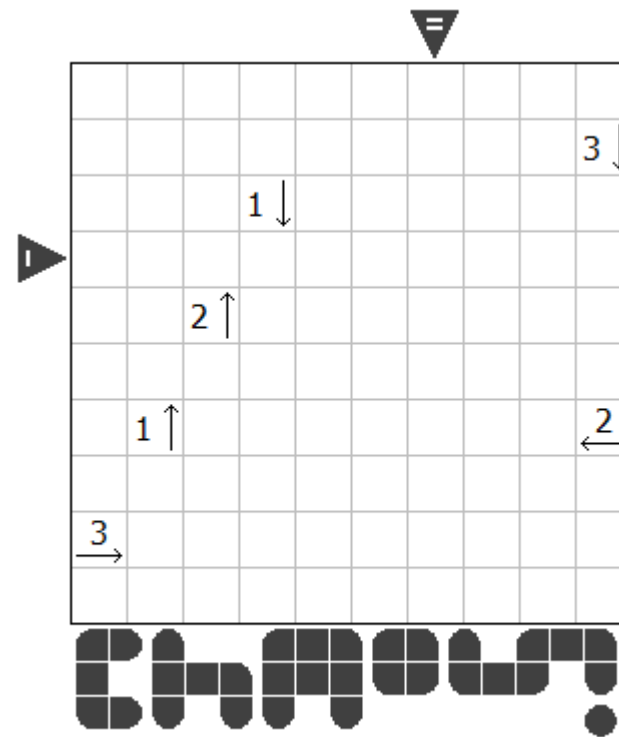
Lengths of consecutive black cells. For the example: 5,1

Shade some of the cells black. The black cells must form a single polyomino; however, no 2x2 area may be all black. Cells that contain numbers may not be shaded black. The black cells divide the remaining cells into several white polyominoes. A polyomino must contain exactly one number which represents the size of the polyomino.

In addition, it must be possible to divide the black cells into non-overlapping dominoes. Note that this partitioning is not necessarily unique, but one such partition must exist.
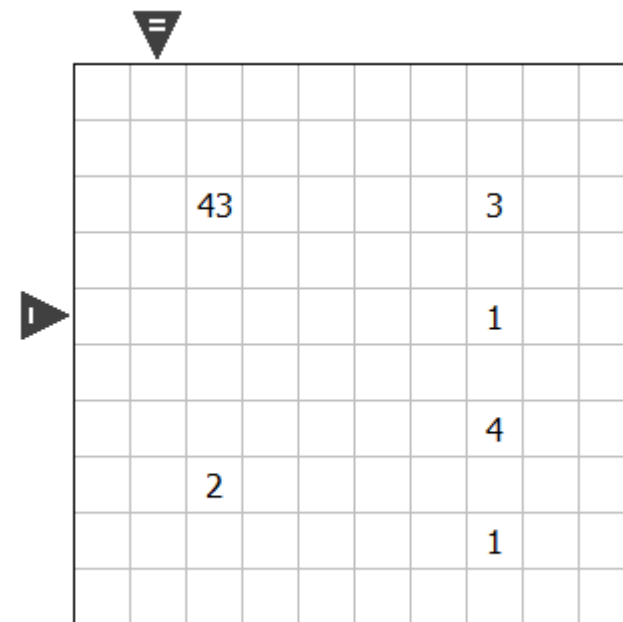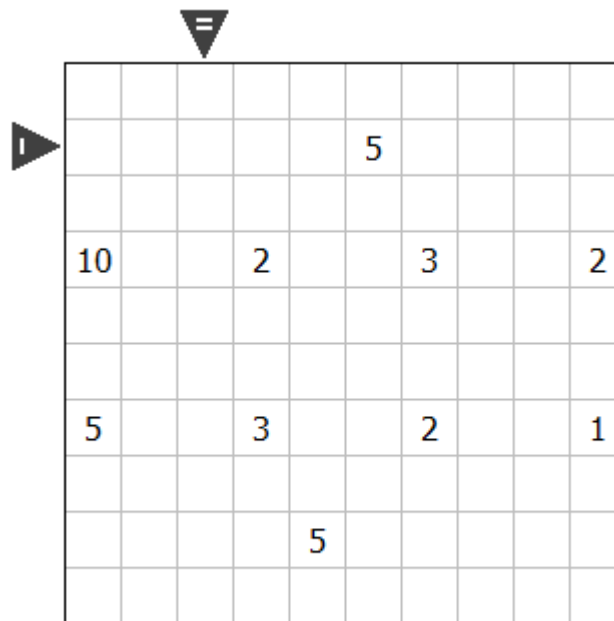
Numbers, not including the observers. For the example: 321,213

	2	•	1	•	2	
2	1	3	2	2	
1	3	2	1	3	
2	2	1	3	1	
	2	3	1		
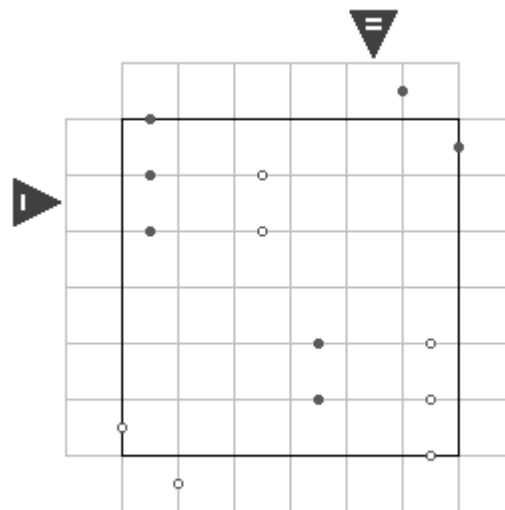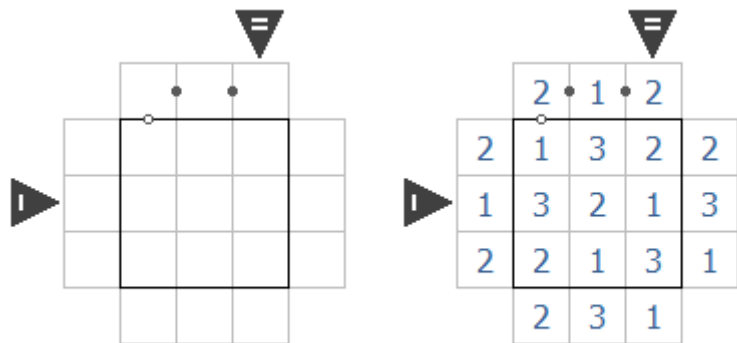
Put the numbers 1-6 (1-3 in the example) to the cells inside the dark-bordered square (grid) so each number appears exactly once in each row/column. If the numbers inside the grid represent heights of buildings, the numbers outside the grid will represent the number of visible buildings from their respective locations looking into the grid. Taller buildings block shorter buildings.

Some borders between cells contain a black circle or a white circle. If a black circle is present between two cells, one of the numbers of the two circles must be exactly twice the other. If a white circle is present between two cells, the two numbers must differ by exactly 1. There is nothing implied by the absence of either circle. The circle between 1 and 2 can be of either color, and doesn't need to be consistent across the puzzle.