I Made Some Paper Puzzles

...and since you're reading this, you might want to see them(?)

Part III

By Arvi Teikari

Version 1.3b

Table of contents:

○ = Idea not at all by me

★ = I especially like this and/or it has received positive comments

✗ = Probably weak

+ = Has been implemented on pzprxs, puzz.link and/or Puzzle Square

    *(credit to **X_Sheep** for puzz.link implementations. Thank you!)*

+ = Has been implemented in the Kudamono puzzle editor

   *(credit for both the editor & the implementation goes to **Pedro**. Thank you!)*

Limited Alike

6/2021

I was quite happy with Alike, but it had a problem of the smallest two options (1-and-2-shaded-cell areas) be so much easier to use that designing puzzles that used larger options without very explicitly removing 1 and 2 as options was quite tough. **Martin "Menderbug" Ender** suggested a really neat solution to this, and this new puzzle format works way better, I'd say! Limited Alike was also featured at the World Puzzle Championship in 2022! Thanks to the WPC organizers for reaching out!

Rules:

- Shade cells so that the shaded cells form a continuous structure.
- No 2x2 fully-shaded shapes, and the shaded area can't form loops.
- All shaded cells within an area must be connected.
- There may not be two adjacent areas with the same number of shaded cells. Note that it's enough that the areas share a side; the shaded cells within them do not need to touch.
- There can be only a maximum N areas with N shaded cells in them. In other words, there can be only 1 area with 1 shaded cell, 2 areas with 2 shaded cells, and so on. Note that this only sets a maximum for the amount of areas with a given shaded cell count; there can be fewer than that.
- Every area must have at least 1 shaded cell.
- If an area has a number, the number indicates the amount of shaded cells in that area. You can shade over the numbers.
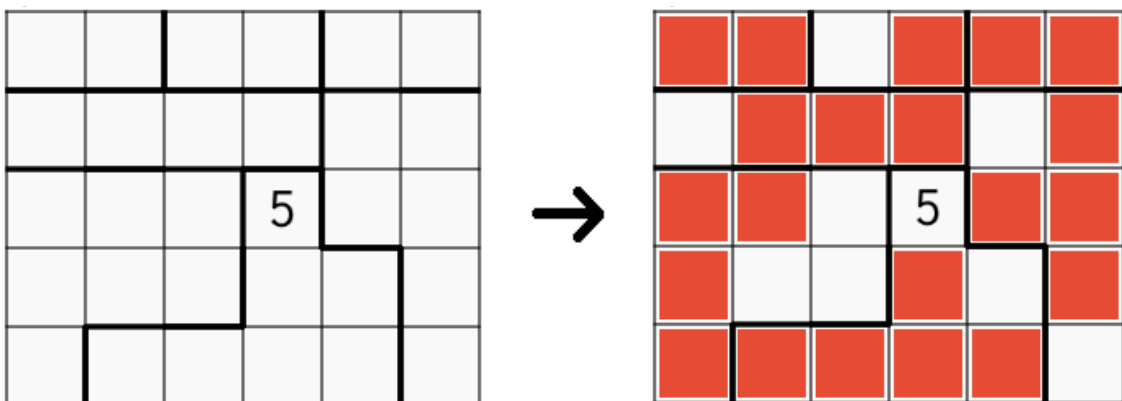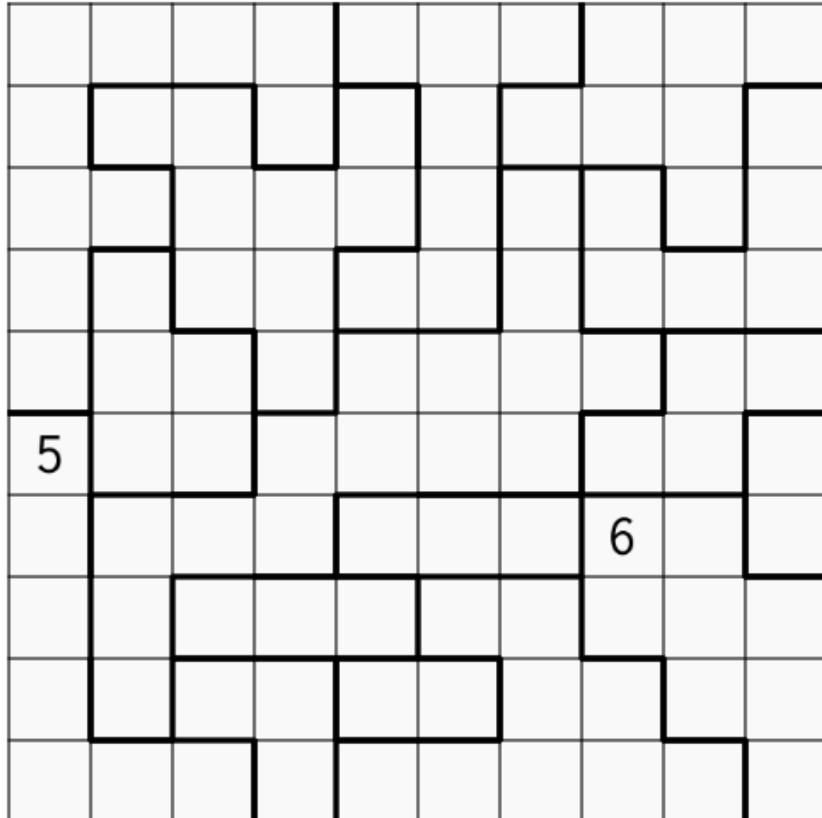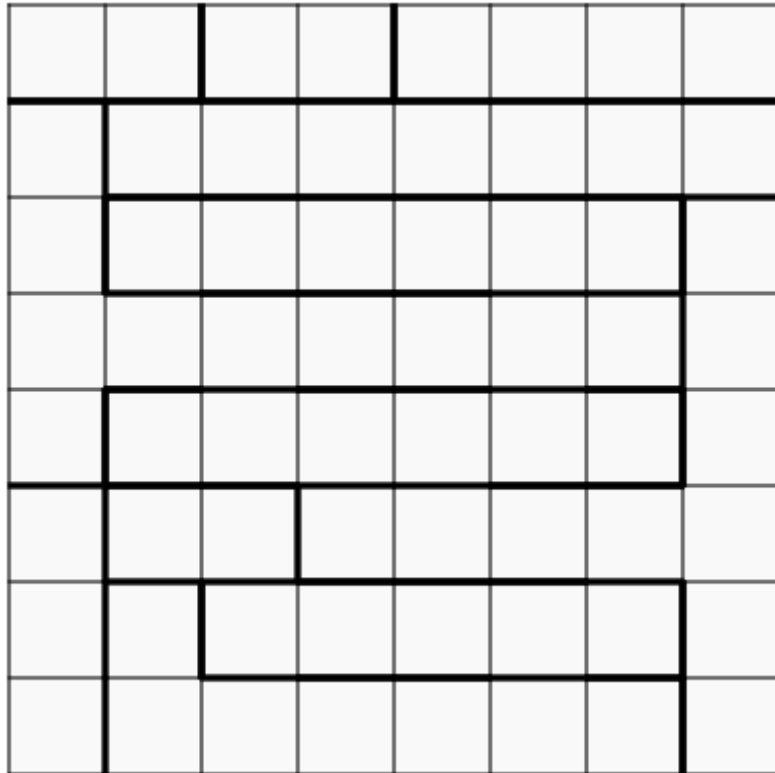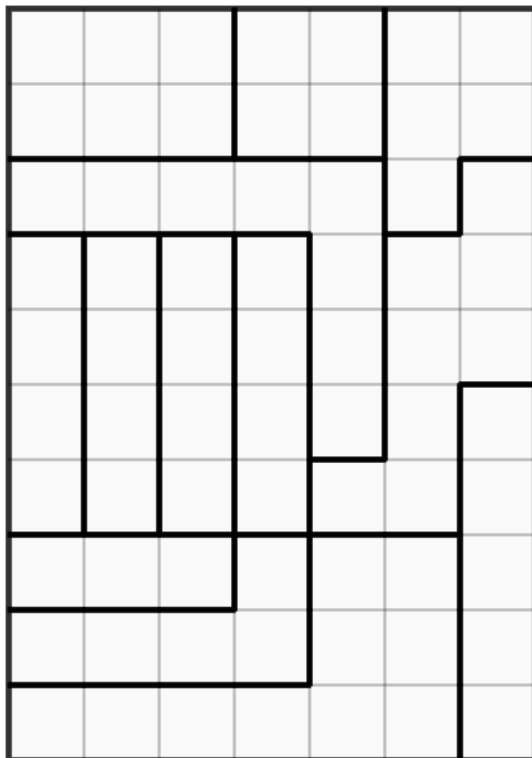
Limited Alike puzzles:

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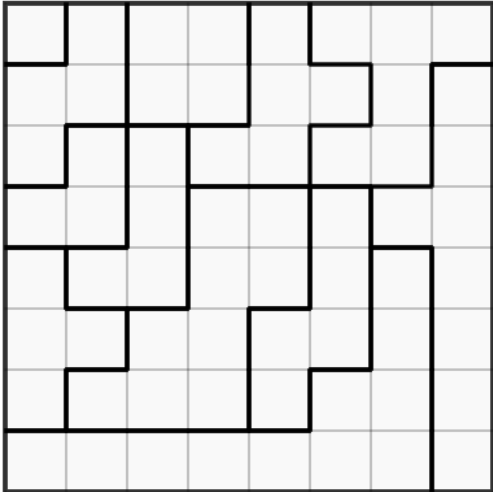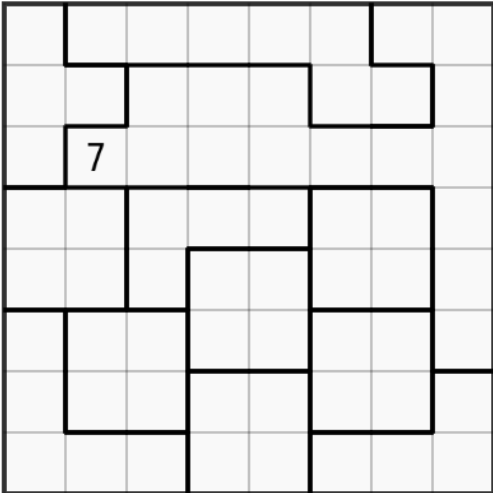

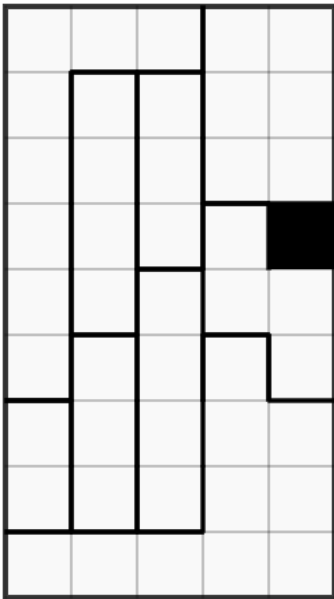
2.

4

3.
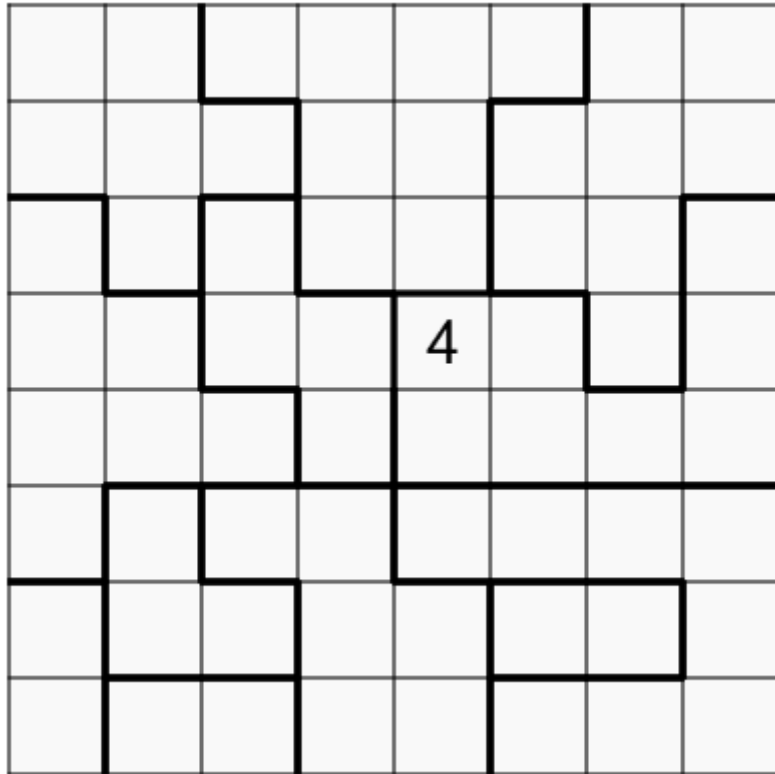
4. WPC puzzle

5. WPC puzzle

6. WPC puzzle

7. WPC puzzle
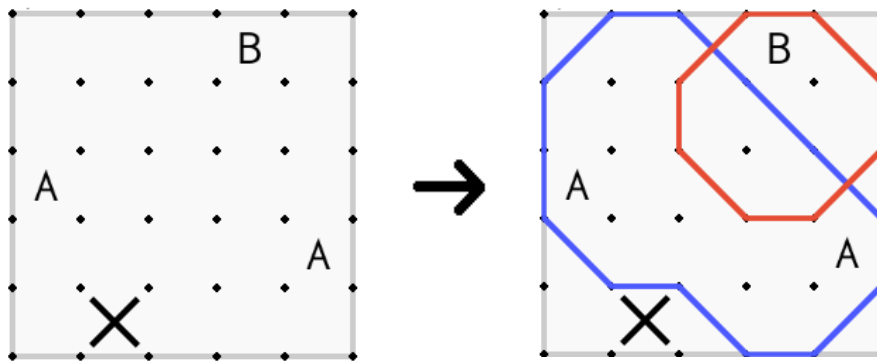
Field trespass

6/2021

I applied some inspiration from **Jack Lance** (no "wrong letters" in an area) and **Portponky** (diagonal steps) to the earlier puzzle type, Shared field, and ended up with this new type, which I feel has much more potential!

Kudamono: https://pedros.works/kudamono/pages/field-trespass.html

Rules:

- Draw as many loops in the puzzle as there are unique letters (i.e. draw 1 loop for A, draw 1 loop for B, and so on).
- Every loop must contain every instance of the letter it stands for (i.e. there must be an A loop that surrounds every letter A), but no other letters.
- No loop may contain an X, and no loop segment may go over a letter or X.
- The loops may take orthogonal and diagonal steps, but may only make 45-degree turns (so for example, if a loop would change from horizontal orientation to vertical orientation, there must be at least 1 diagonal step in-between).
- Loops may cross each other in a plus- or cross-shaped pattern (see below for an example of all the possible crossing types). A loop can never intersect itself.
- Other than the crossing mentioned above, the loops can't revisit points already visited by a loop.
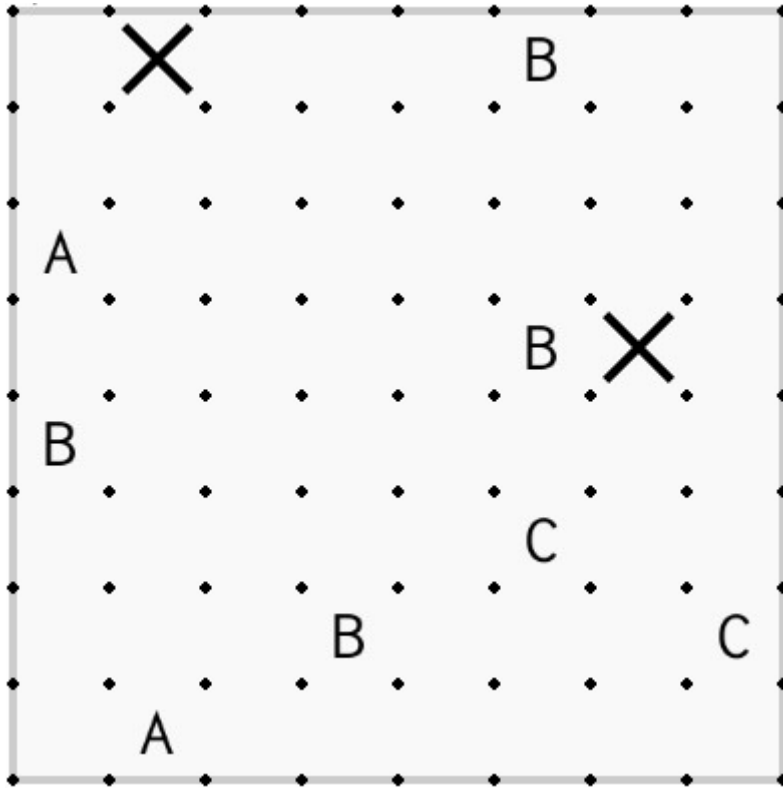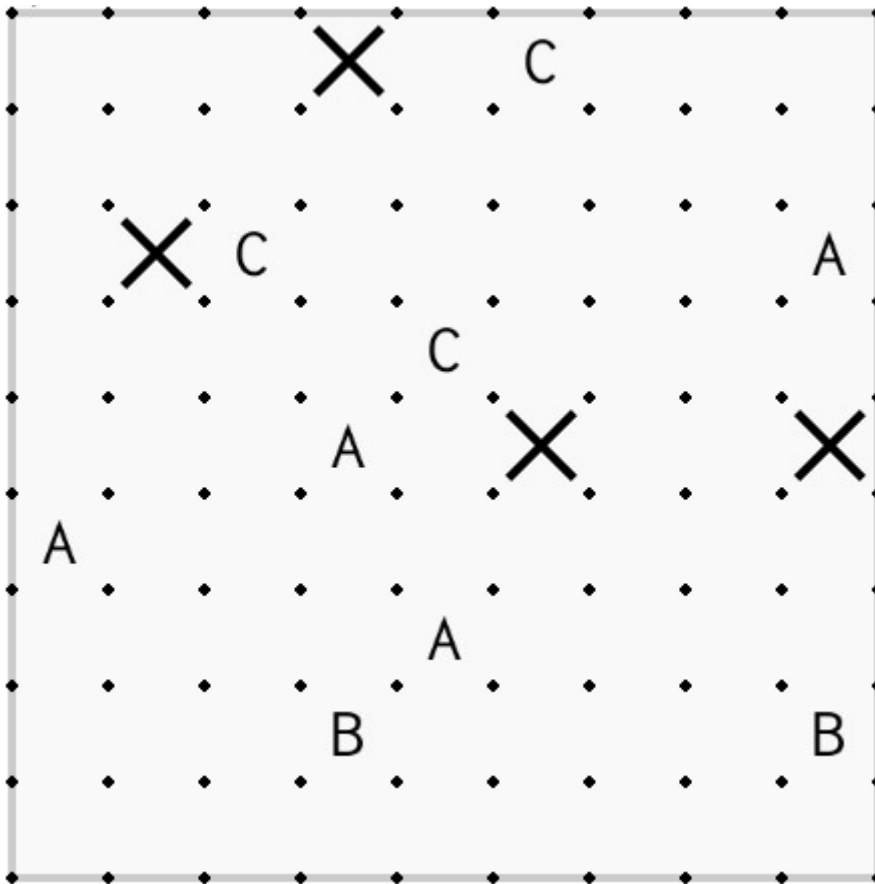

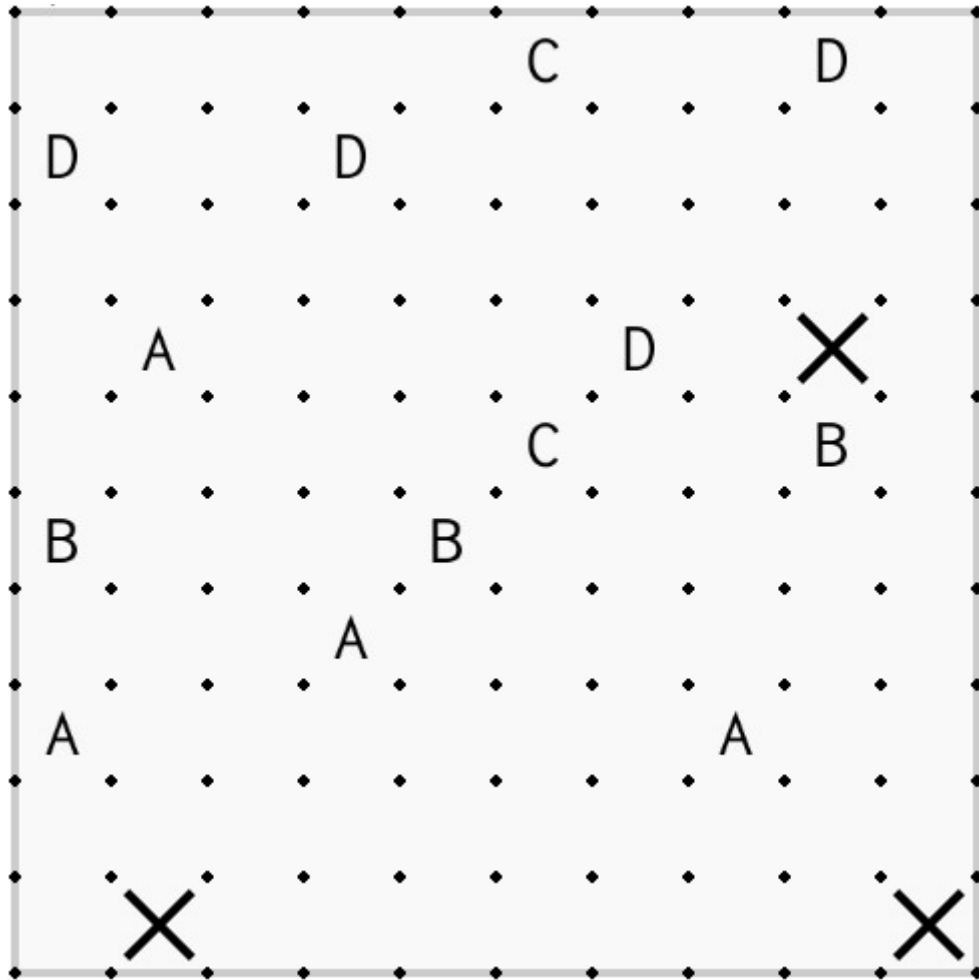Here are all the allowed intersections:
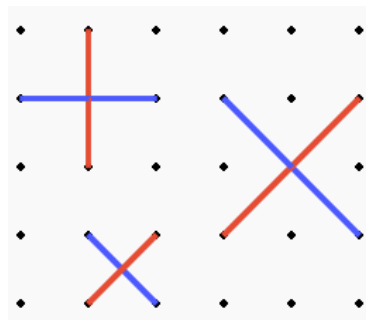
# Field trespass puzzles:

1.

2.

3.

LITSalike

10/2020

In my mind this was intended to be a combination of Alike and the existing genre, LITS, but ultimately it's probably most similar to Limited Alike. Oh well! Apparently the rules changed at some point and I overhauled the puzzles to work with the current ruleset in March 2025.

Rules:

- Shade cells so that the shaded cells form a continuous structure.
- No 2x2 fully-shaded shapes, and the shaded area can't form loops.
- All shaded cells within an area must be connected.
- There may not be 2 areas with the exact same shaded shape, even mirrored/flipped or rotated.
  - For example, if one area has a 1x3 shaded I-shape, another area can't have the same shape, even if the I was rotated to be horizontal. However, another area *can* have an L-shape made out of 3 shaded cells.
- Every area must have at least 1 shaded cell.
- If an area has a number, the number indicates the amount of shaded cells in that area. You can shade over the numbers.
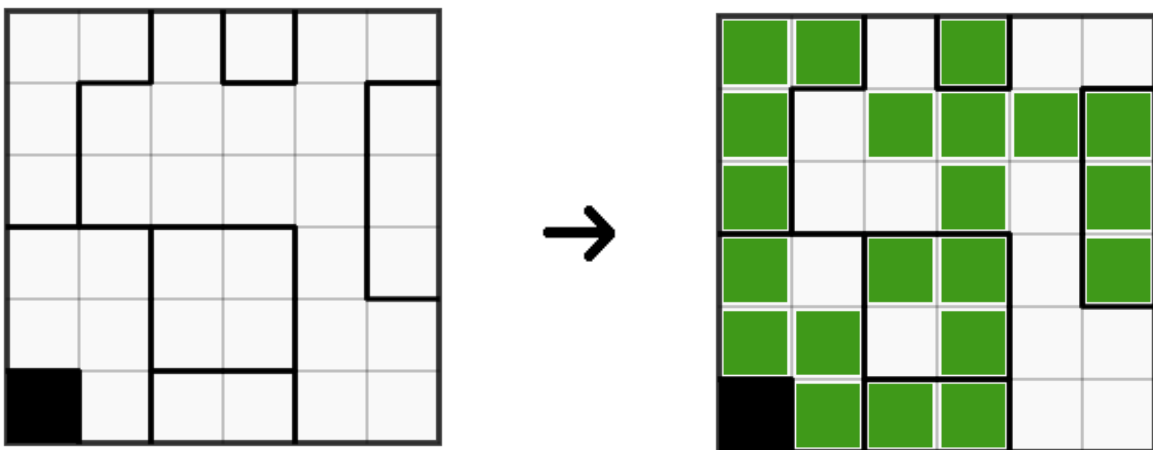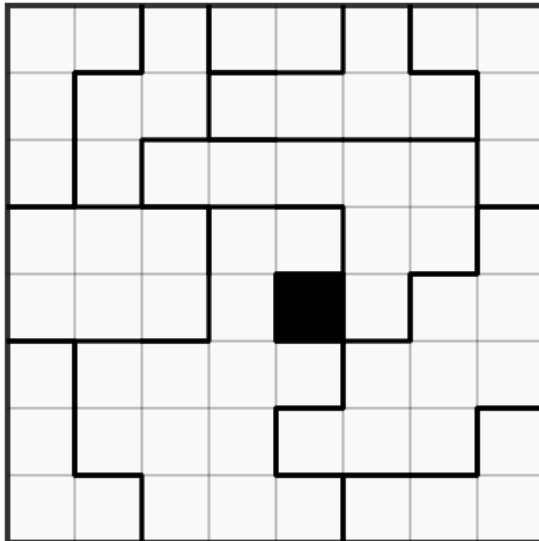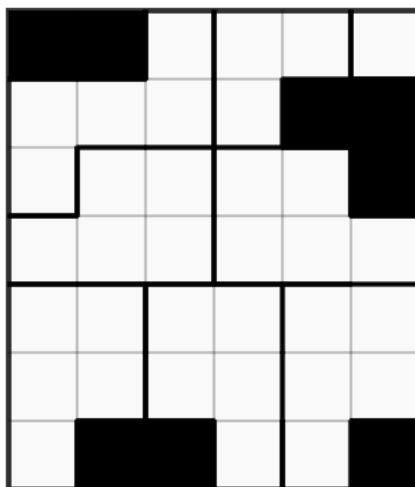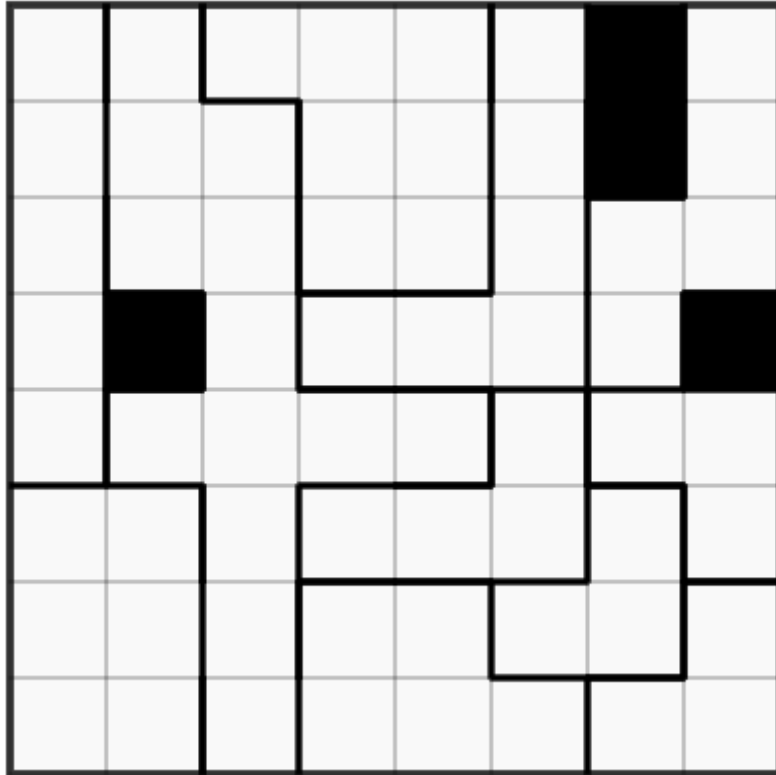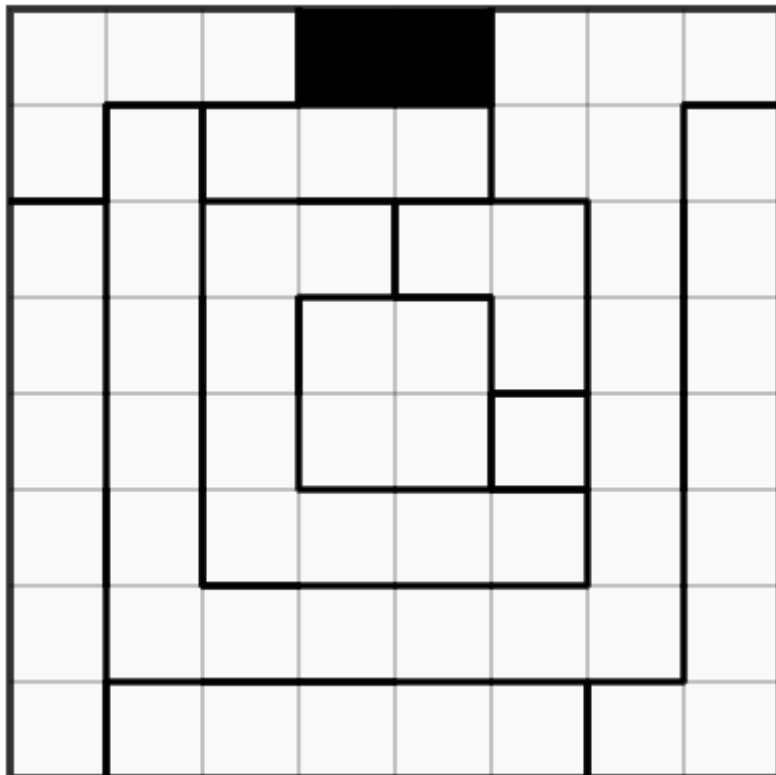
LITSalike puzzles:

1.
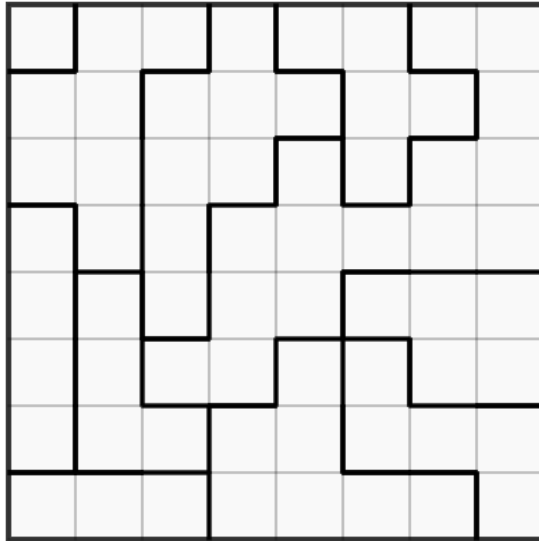
2.

3.

4.

5.

Corner meeting

11/2021

I wondered how to utilize corners as clues in a puzzle, and this was the result. Initially every area in a solution had to have exactly 1 clue, but this turned out to limit the design space a lot and I ended to adding a secondary clue based on feedback from the Thinky Puzzle Games community. Thanks!

Puzzle Square: https://puzsq.logicpuzzle.app/?kind=857
Kudamono: https://pedros.works/kudamono/pages/corner-meeting.html

Rules:

- Divide the grid into areas. Each area must contain exactly 1 circle, and every cell must be part of an area. There may be no dangling lines.
- The number clues indicate the total number of 90-degree corners in the 4 dots around the cell a clue is in.
    - For example, if a clue had a plus-shaped intersection in the top-right dot of its cell, there'd be a total of 4 corners counting towards the clue (also see example below).
- The edges of the puzzle are not counted for the clues; that is, a line starting from the edge of the puzzle isn't considered to form a 90-degree corner with the edge.
- ? clues can't be zero.
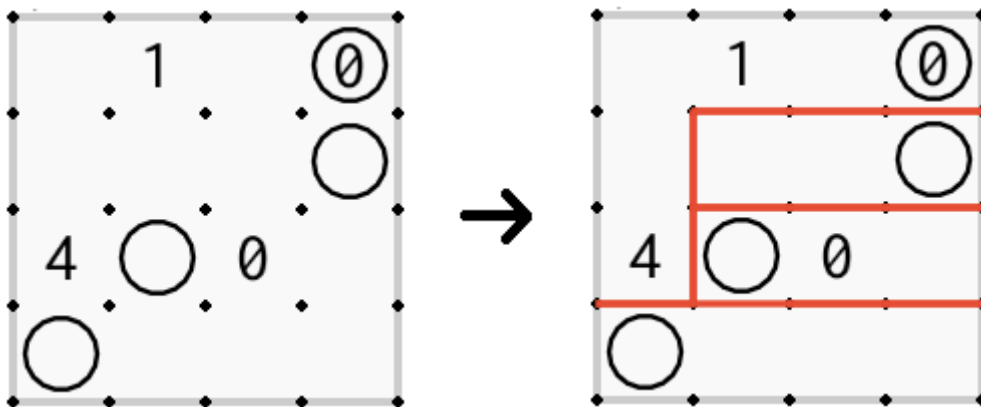
Example on how to count the corners:
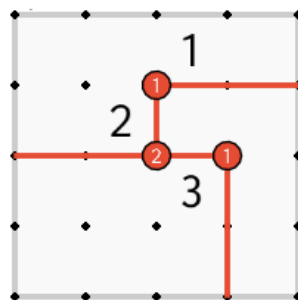
Corner meeting puzzles:

1.

2.

3.

Nodeloop

11/2021

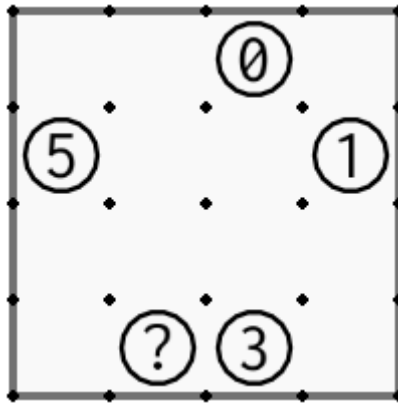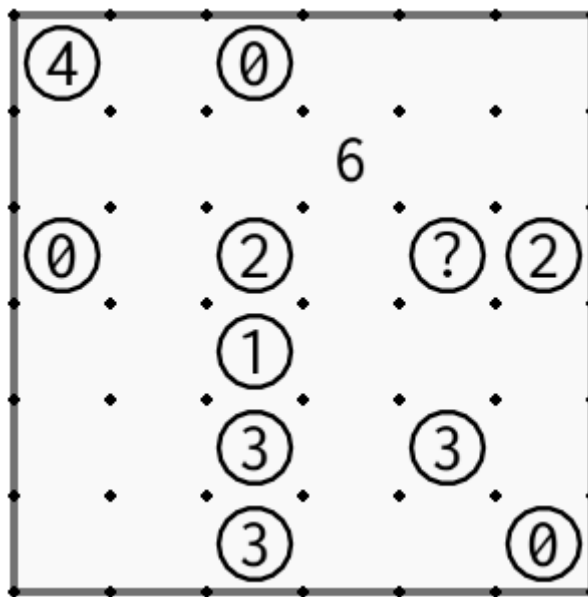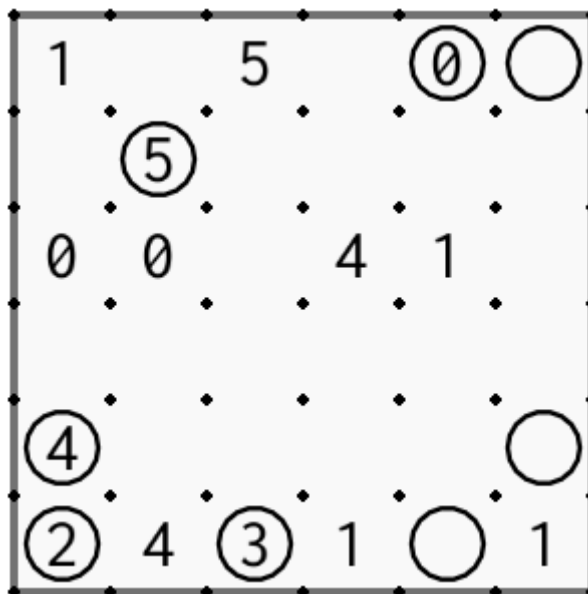I don't honestly remember how this came to be. I think I mulled around with various concepts built around clues that count things around them? Anyway, the result is nothing fancy, but perhaps neat?

Rules:

- Draw a non-branching loop that visits every unshaded cell in the puzzle.
- The loop consists of lines that can be either of 2 types, A or B:
    - A: The line can't turn but can (and must) pass over exactly 1 other line (of either type).
    - B: The line can turn once, but can't go over other lines.
        - Note that a type B line can still cross with a type A line due to how type A lines themselves work!
- A maximum of 2 consecutive lines in the loop can be of the same type. When one line ends and another begins, the new line can head in any direction.
- Draw a "node" at the end/beginning of every line. The number clues at the edges of the puzzle indicate how many nodes there are on that row/column.
- Lines of either type can't go through nodes without terminating there; lines of type A can't pass over another line on a cell with a node.
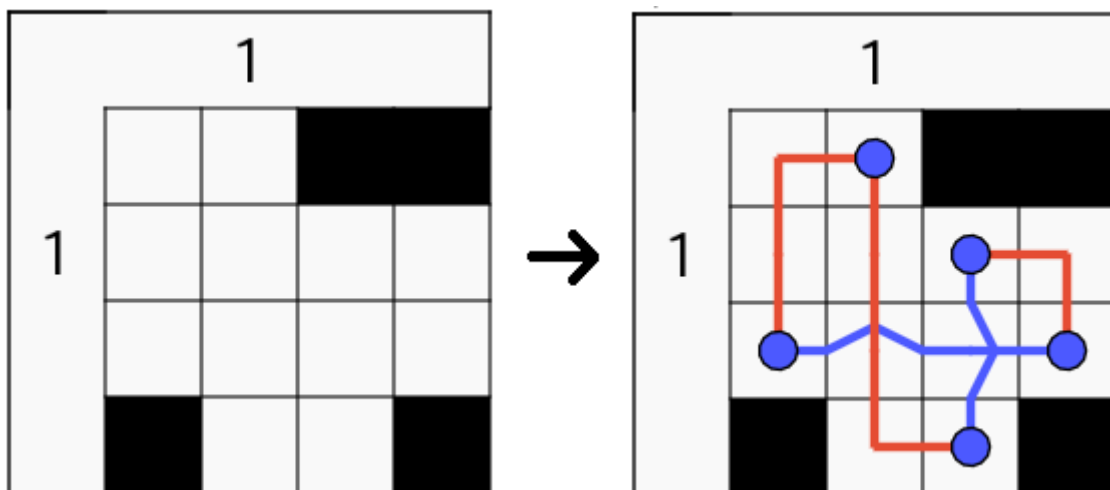
Nodeloop puzzles:

1.
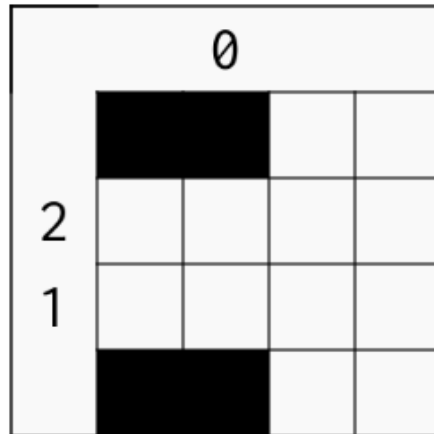
2.
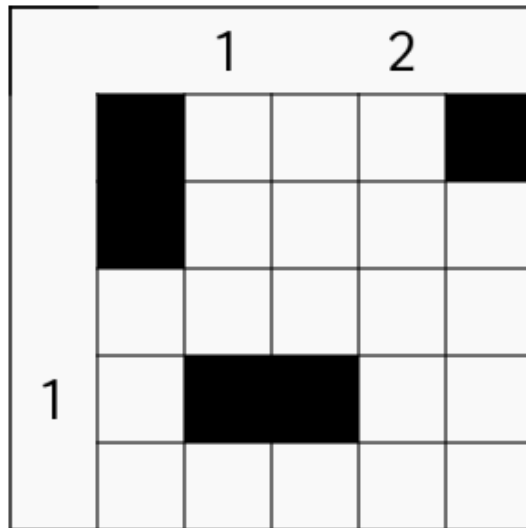
3.
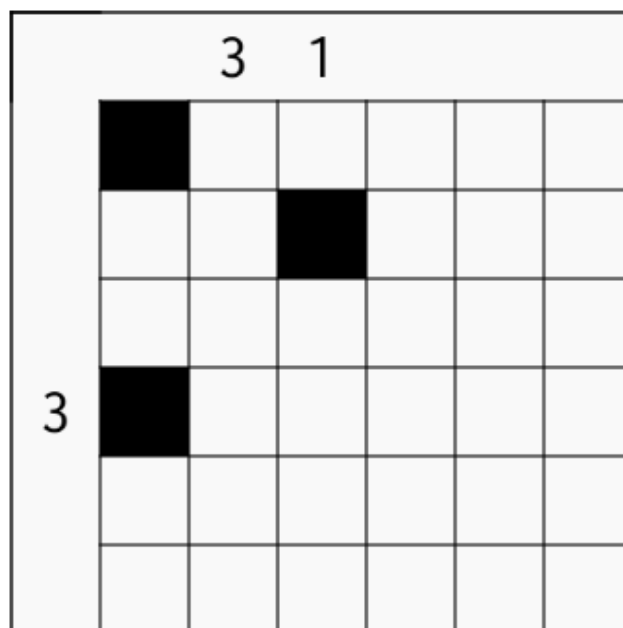
Loop battle

12/2021

I've seen a lot of variants of Star battle, but I've always been really bad at solving even the base genre. However, I found the idea of combining Star battles with counting corners in lines quite fun, so here we go.

Rules:

- Draw a single unbranching loop from cell to cell. The loop may not intersect itself, and doesn't have to visit all cells.
- Every row, column and separate area must have exactly X turns in the loop; the value of X is indicated in the top-right corner.
- Unlike in Star battle, the turns can be directly adjacent to each other.
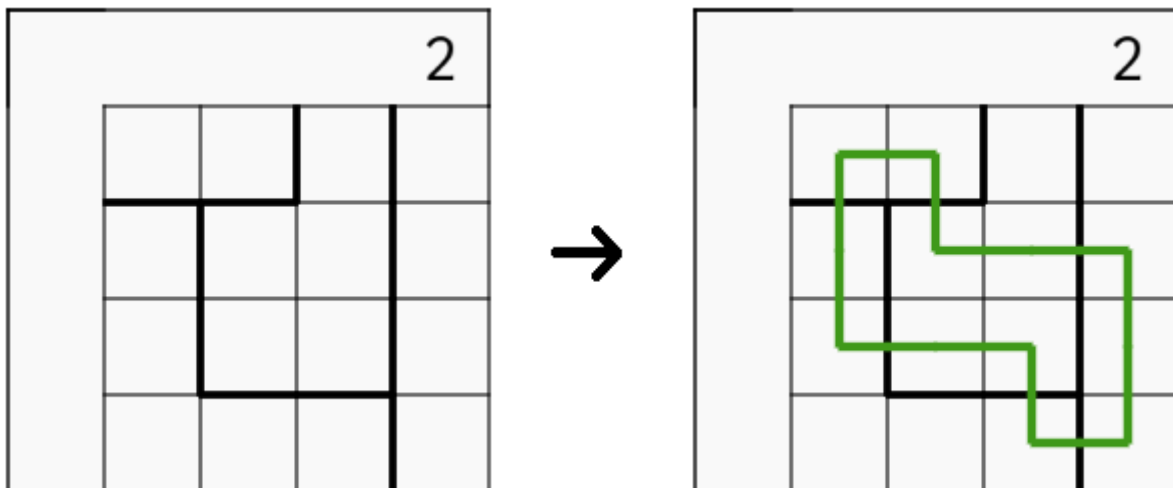
Loop battle puzzles:

1.

2.
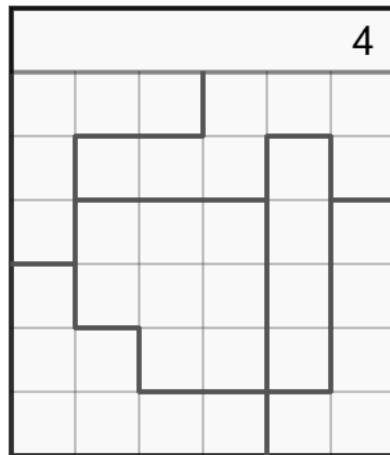
3. (finished in 2025)
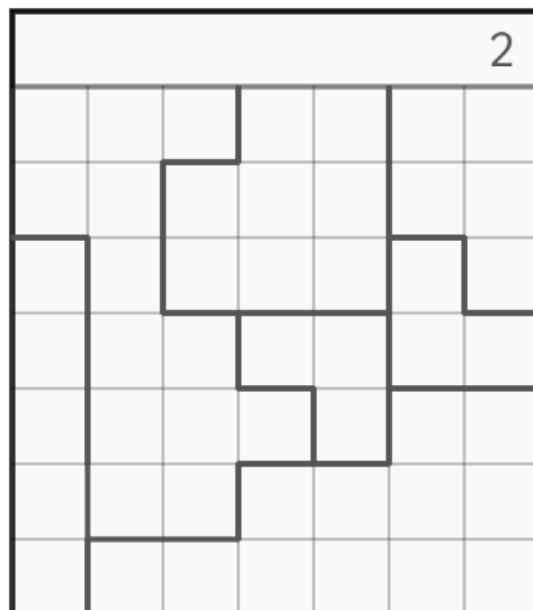
Plot twist

12/2021

I had dabbled with the idea of utilizing concave corners as clues earlier, probably in relation with Corner meeting. However, only with Plot twist did I actually manage to make them work to an extent. Pretty happy with this!

Puzzle Square: https://puzsq.logicpuzzle.app/?kind=856
Kudamono: https://pedros.works/kudamono/pages/plot-twist.html

Rules:

- Divide the grid into areas. Each area must have exactly 1 clue.
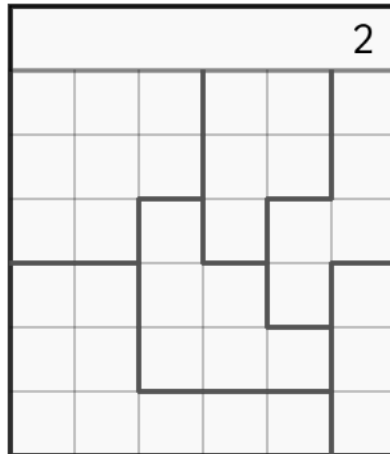- The circled number in a clue indicates how many cells are in that area, and the uncircled number indicates how many concave corners there are in that area.
  - Concave corners can be thought of as turns in the area where the point of the turn is inside the area, rather than outside of it.
- There can't be any dangling lines, and every cell must be part of an area.
- Uncircled ? can be zero.
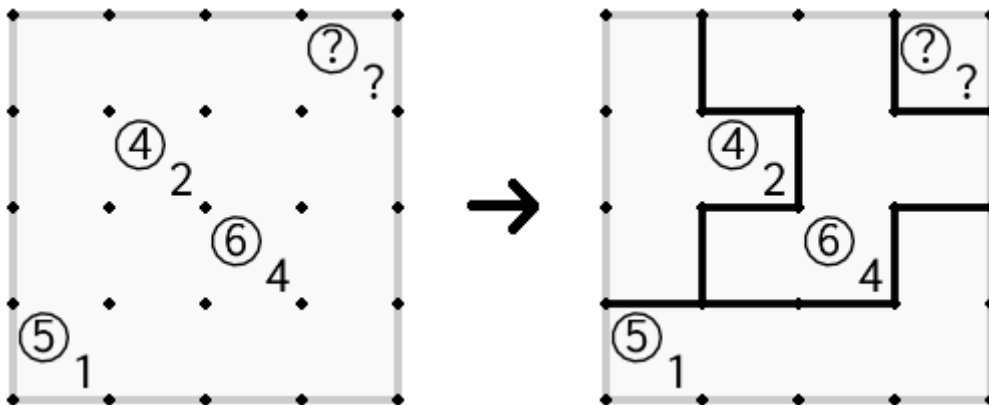
Plot twist puzzles:

1.
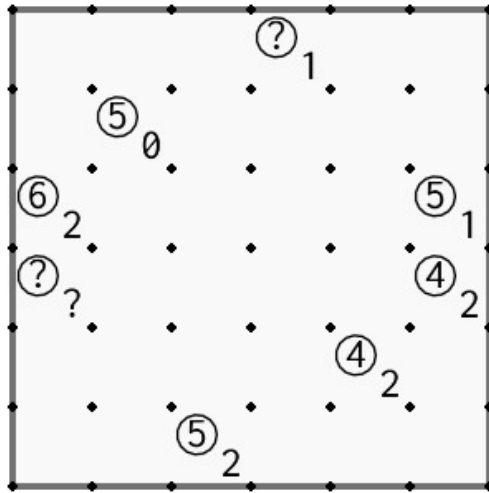
2.
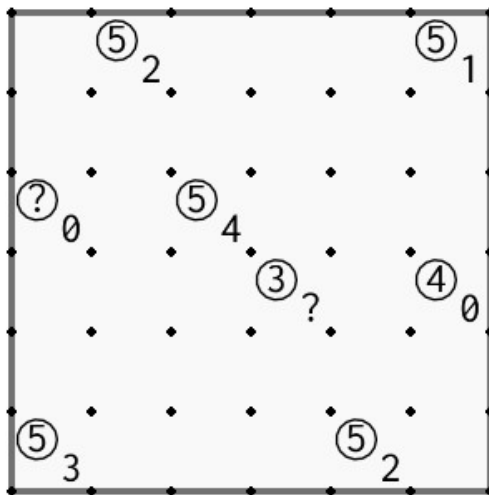
3.
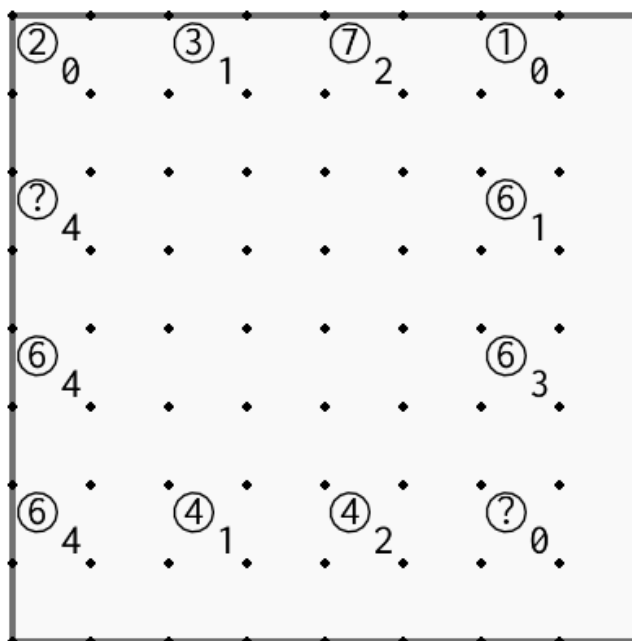
Snake nest

12/2021

The initial implementation of this genre was very very bad, because I thought that it's impossible to fill a grid with the ruleset as it was. Luckily this wasn't actually the case; I quite like this genre despite it being slightly unusual. Inspiration also came from a potentially-unnamed puzzle type posted by a member of the Baba Is You community.

Rules:

- Draw unbranching lines from cell to cell so that every unshaded cell contains a line segment. The lines can turn but may not cross or visit shaded cells.
- The "length" of a line is calculated by how many cells it visits. The minimum length of a line is 2.
- Two lines of the same length can't be orthogonally adjacent.
- Every line of length X must have exactly X orthogonally adjacent neighbouring lines.
  - For example, a line that visits 3 cells can't have neighbouring lines that also visit 3 cells, but must have a total of 3 neighbouring lines of other lengths.
- A clue indicates the length of the line that visits said clue's cell. A line doesn't have to visit any clue cells, and can visit a maximum of one clue cell. The clue cell must contain one end of the line (so the line can't pass over a clue, it has to start/terminate there).
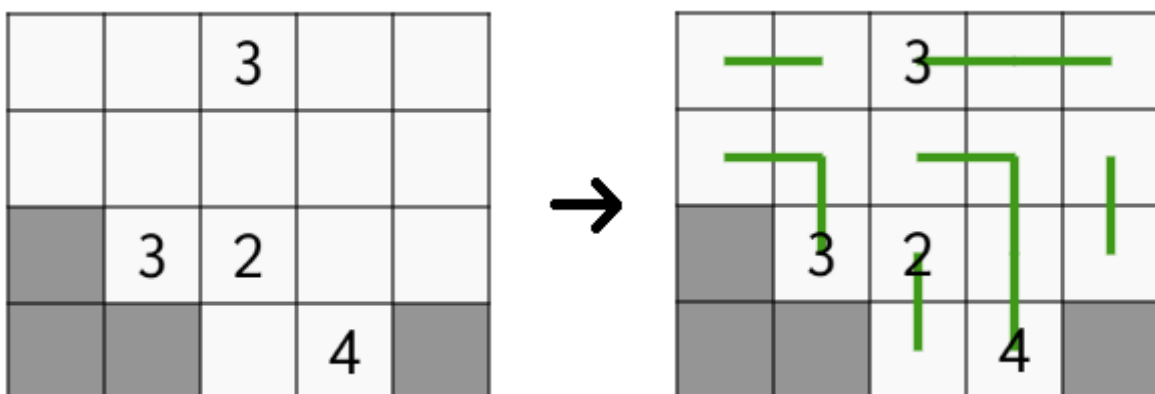
Snake nest puzzles:

1.

		4	
			3
	3		

2.

			7		
				2	3
	5	2			
4					
		4			

3.

			2			
			5			
				5		
		2		2		
		6				

4.

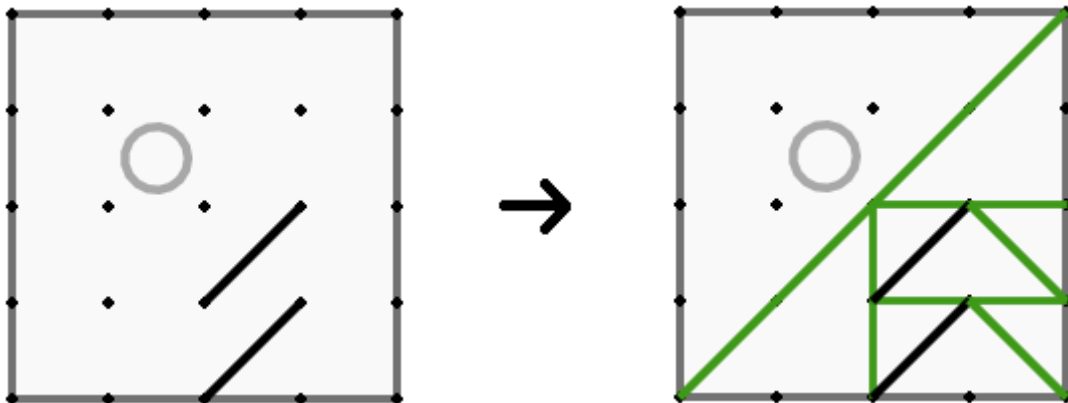|						
			4			
	3					
	4	5				
	6	3				

Triangle field

2/2022

Oh no, I've been making these for 2 years soon. There was a lull of a couple months where I didn't really get any new ideas for paper puzzles, so coming up with this was a welcome thing. A bit odd but well, maybe that's not bad?

Rules:

- Divide the grid into right-angled triangles by drawing line segments from dot to dot. Every cell in the puzzle must be part of a right-angled triangle.
- Diagonal lines must all be slanted 45 degrees. The lines may not intersect.
- Lines already on the grid are part of the solution. The edge of the grid should be treated as pre-drawn line.
- Two triangles of the same shape & size may not share an edge, even if one of them is rotated, mirrored or flipped.
  - Note though that a triangle can have one of its points touch the point/side of another triangle of the same shape & size. Only shared edges matter.
- Cells with hollow circles can't have diagonal lines on them.

Triangle field puzzles:

1.

2.

3.

Bunnyhop

I think this emerged from some pondering on triangular shapes on a grid as well as Crossstitch-type genres? Definitely a very sudden and "random" idea. The concept is neat but might need a bit more meat on it to support more complex puzzles.

Rules:

- Draw a single, unbranching & non-intersecting loop along the edges of the cells on the grid. The loop may not visit the same point/edge twice.
- Each line segment on the loop is considered to "visit" a cell, indicated by the segment curving towards the middle of said cell (see example). The loop must visit every unshaded cell on the loop in this way.
- Shaded cells can't be visited at all.

Bunnyhop puzzles:

1.

2.

3.

Unrectangles

2/2022

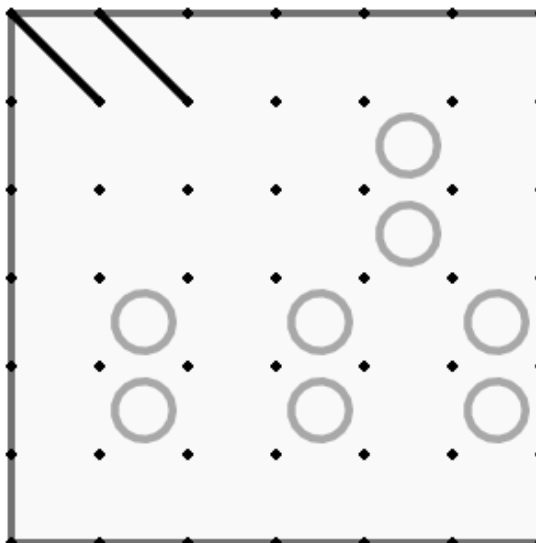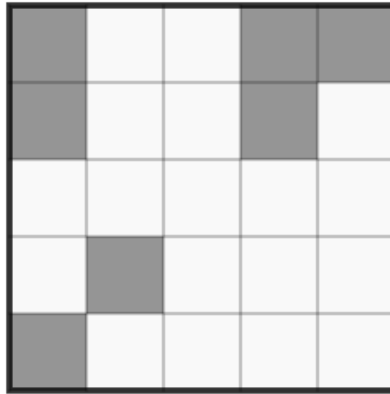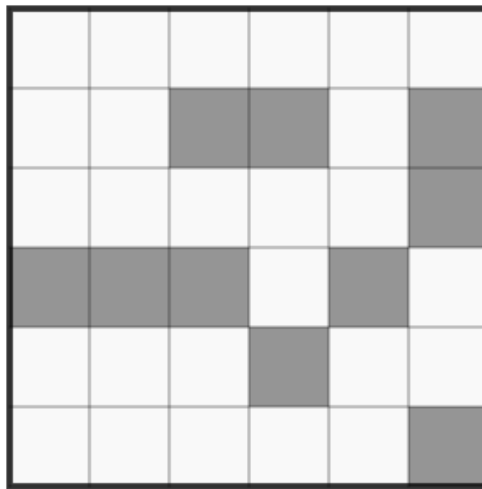This idea is heavily inspired by **Eric Friedman**'s **Shape Grid** paper puzzle type (*https://pedropsi.github.io/shape-grid.html*). However, I think this type has enough of its own stuff to be separate from Shape Grid.

Kudamono: https://pedros.works/kudamono/pages/unrectangles.html

Rules:

- Divide the grid into areas so that every area has exactly 1 clue. Every area must have exactly 4 corners, and each corner must lie on a grid intersection point (i.e. in the corner of a grid cell).
- Exactly one side of every area must be slanted.
  - The angle of the slant doesn't have to be 45°.
  - Note that the slanting side must still start and terminate on grid interseaction points.
- The clue cells indicate how many cells are contained in the area or intersected by it.
  - A cell that has only a small bit of itself within an area still counts fully for that area's clue.
- The clue cells mustn't contain any slanted lines (i.e. the clue cells must be fully contained within their respective areas).
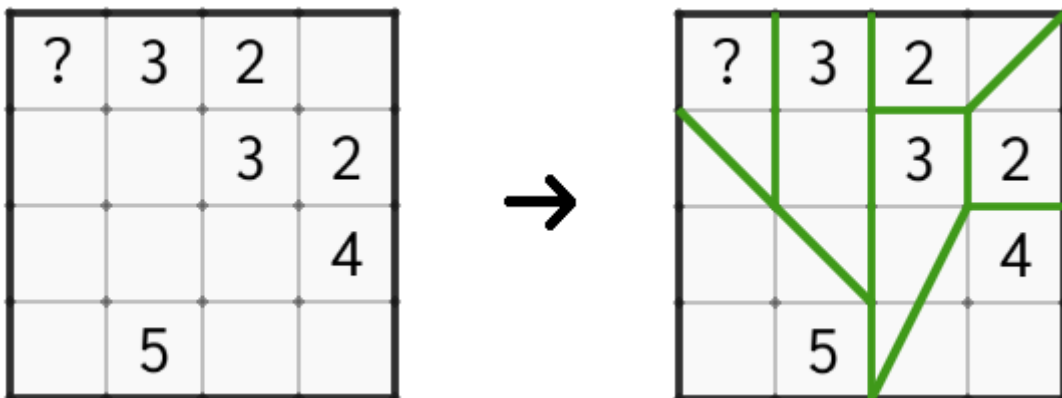
Unrectangles puzzles:

1.

4				5	5
5					
3	2		8	6	
	?			?	

2.

8						5	
4	6					4	
			9		6		
		4		9			
	4					5	5
	6						4

3.

|				7			
			3			?	
					3		
	?						6
?			9			8	
		5					
	6			8			
			8				

Bricklayer

2/2022

There are a bunch of puzzle genres that are about dividing the grid into rectangles, and this concept seemed pretty much like the simplest possible implementation of that. I personally assumed that the outcome would be way too simple to be interesting, but some other puzzle designers told me that the simple concept holds some interesting deductions. Cool! Thanks to **Jack Lance** for a better explanation of the rules. I later experimented with Bricklayer+ to add a bit more variety to the type, but that didn't end up going much of anywhere (I seem to recall?)

Puzzle Square: https://puzsq.logicpuzzle.app/?kind=812
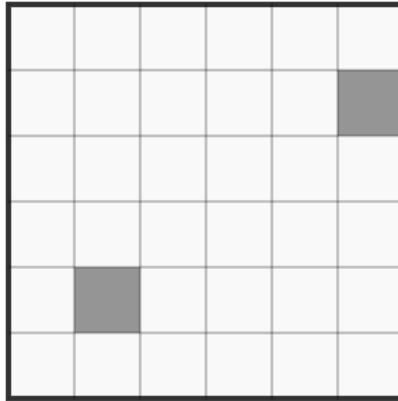**Kudamono:** https://pedros.works/kudamono/pages/bricklayer.html

Rules:

- Divide all the unshaded cells in the grid into 2x1 rectangles.
- There may never be a 4x1 formation of 2 rectangles aligned the same way (horizontally or vertically).
- Shaded cells are essentially walls and can't be included in any of the rectangles.
- **Bricklayer+**:
  - If a rectangle contains a number, the long side of that rectangle must be equal in length to the number. A rectangle may contain 0, 1 or more numbers.
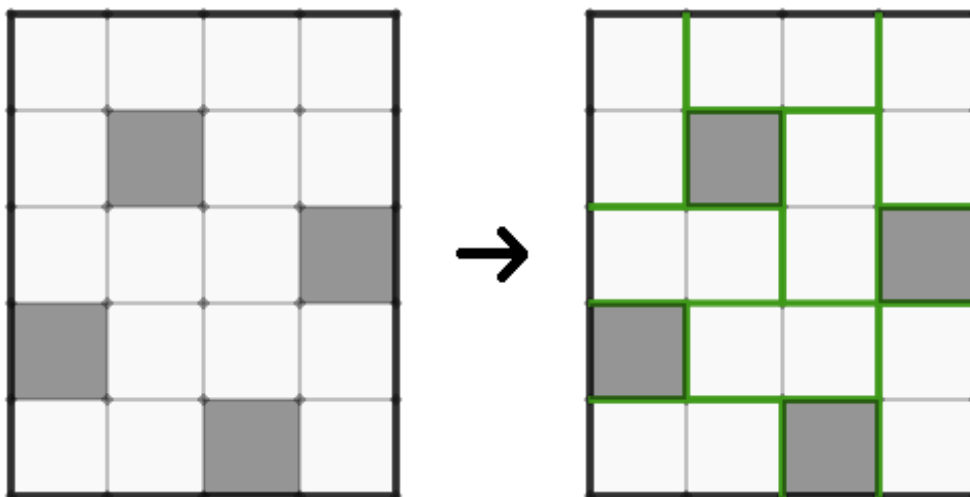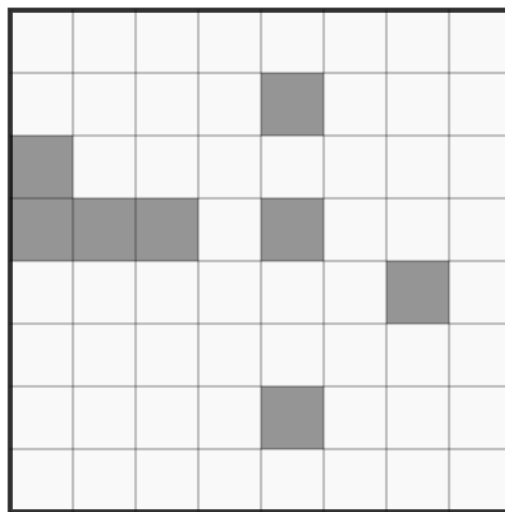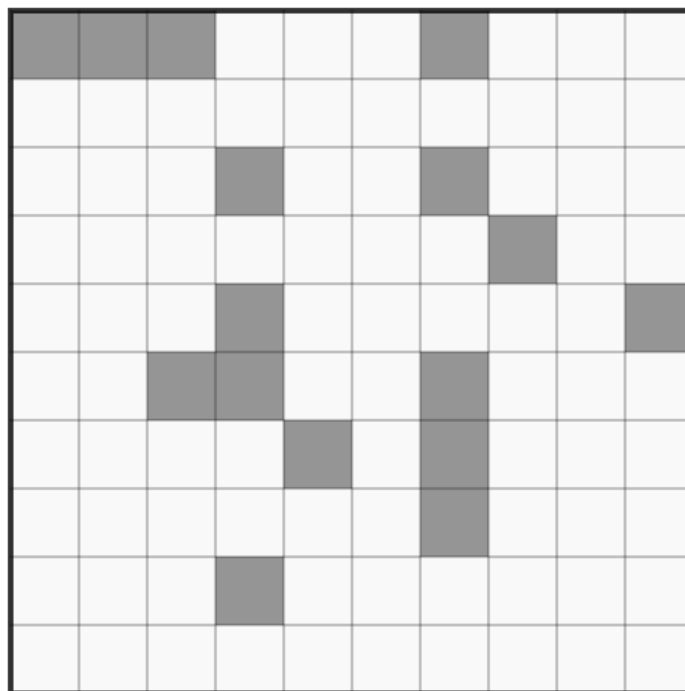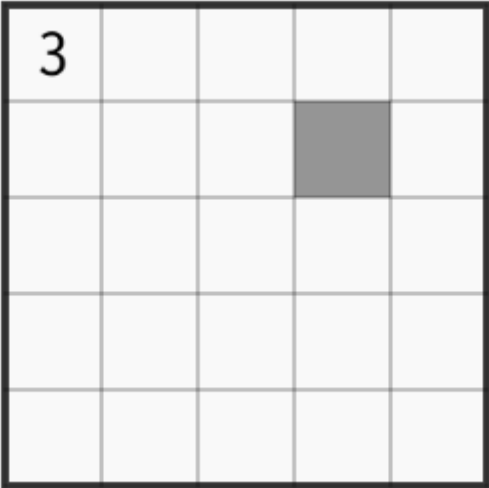
Bricklayer puzzles:

1.

2.

3.

4. Bricklayer+

5. Bricklayer+