# I Made Some Paper Puzzles

...and since you're reading this, you might want to see them(?) Version 1.1.12b

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<ul> <li>○ = Idea not at all by me ★ = I especially like this and/or it has received positive comments</li> <li>X = Probably weak</li> </ul>	

# **Canal View**

#### 2020

I had seen various puzzle types, mainly in the Star Battle, Tapa, Nurikabe & LITS -genres, and wanted to make my own. I liked Tapa the most, so I started from it and came up with an idea that seemed nice. I named this new thing "Somethingapa", but when I showed it around, it turned out I had recreated an existing puzzle type called Canal View. So here we go:

- Shade cells on the grid to form a single, fully connected shape. You may not shade over clues (i.e. cells that contain numbers).
- The clues indicate how many shaded cells are in total in the 4 cardinal directions around the clue, counting from the clue until the first empty space or an obstacle (i.e. edge of the puzzle or another clue).
- There may never be a 2x2 fully-shaded shape.



## **Canal View puzzles**

5				
	4		3	
3		1		4

2.

			4		3	
5		2		0		
					2	
					5	
	0		4			
					4	1

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

		5								5	
4						1					
				1		3		2			
			1								
	2									2	
				4						3	
	6						3				
	4									1	
								3			
			4		1		2				
					1						2
	0								3		

# **Diaganal View**

2020

A fairly funky variant of Canal View.

### **Rules:**

1.

- Same as Canal View, but this time the clues indicate how many shaded cells are in total in the 4 *diagonal* directions around the clue, counting from the clue until the first empty space or an obstacle (i.e. edge of the puzzle or another clue).
- Other rules still apply as normal.

	0					
	3		4		3	2
			6			
2		4				5
				3		
						1
?		5				
1			0			

### **Diaganal View puzzles**

	1							2	
				2	2				
0		2					8		3
			2			7			
2	3		2			7		4	1
	3	3					6	1	
		3		2	1				

# Sentinels

#### 2020

After realizing Canal View already existed, I went to think of variants that didn't exist yet because I'm a silly person. The result was Sentinels, which has many similarities but switches the shaded cells for a drawn line.

- Draw a single line from cell to cell so that it forms a connected shape (i.e. a loop). The loop can't branch out and has to remain a single line throughout.
- The loop may not do a sharp U-turn (i.e. turn twice in the same direction in two consecutive cells).
- The loop may not visit a cell more than once, and as a result it can't intersect itself, either. It also may not go over the clue cells.
- The clues indicate how many cells containing a section of the loop exist in total in the 4 cardinal directions around the clue, counting from the clue to the first obstacle (i.e. the edge of the puzzle or another clue).
- In short, the clues work like in Canal View, but count line segments even if there's an empty gap between them and the clue.



## Sentinels puzzles

		7		
3				
	4			
2			3	

2.

3					3
			7		
	6	4		4	
			10		
		4			
	6		?	2	
		5			
7					7

				3
			8	
	5	5		
			3	
		6		
			1	

# **Sentinal View**

#### 2020

The missing link between Sentinels and Canal View.

- Like in Sentinels, you must draw a single, unbranching loop.
- Like in Canal View, the clues indicate how many cells with loop segments in them are in total in the 4 cardinal directions around the clue, counting from the clue until the first empty space or an obstacle (i.e. edge of the puzzle or another clue).
- The loop must behave like in Sentinels, and as such it may not do sharp U-turns (i.e. turn twice in the same direction in two consecutive cells).



## Sentinal View puzzles

	2		3		
				0	
		7			
1					
	3			4	

2.

		?		
		4		
8				
1				3
				?
		2		
		6		

3.

2		7	
	3		4
?		3	

# Celltinels

#### 2020

Sentinels, but with shaded cells? This is very close to Canal View, but other people commented that this genre works somewhat more nicely than the line-based one.

- Shade cells so that they form a single, unbranching loop. Every shaded cell must be directly (i.e. cardinally) adjacent to exactly 2 other shaded cells.
- The shaded cells may not go over the clue cells.
- The loop again many not perform a sharp U-turn; also there may not be a fully-shaded 2x2 shape, which is nearly the same thing.
- In addition, the loop may not touch itself diagonally, either. There may be a shaded cell diagonally adjacent to another only if there's a third cell that directly connects them (that doesn't break any of the other rules).
- The clues work like in Sentinels; they indicate how many shaded cells exist in total in the 4 cardinal directions around the clue, counting from the clue to the first obstacle (i.e. the edge of the puzzle or another clue).



## **Celltinels puzzles**

		5	2		
	8				6
		?			
		4			
8					
				5	

2.

1.

		?						
?			4	6				
			3			3		
7	4		8				7	
	2			4		1	0	
								7
	2		3	2				
				3			?	

13

?		4		1		5
			4			
		4	0	1		
	6		?		6	
		7		?		
		2		2		

3			6						
								5	
					6	4			
			6						
								?	8
		6		4		3			
			5		1		8		
3	6								
						5			
			2	6					
	8								
						5			5

-							
			3	3		5	
	6		3	3			8
			3	2			
2			3	3		5	
	5		3	3			

6					9
	4			8	
		7	9		
	3			4	
	2			5	

# Snakcelltinels

2020

Celltinels, with a slight twist. Nothing massively exciting, but it works!

### **Rules:**

- Celltinels rules, but instead of shading cells to form a loop, there are two circles in every puzzle, and the shaded cells must form a snake that starts from one of them and ends at the other.
- Still no branching, no diagonal touching, no 2x2 fully-shaded shapes and so on.





### **Snakcelltinels puzzles**



4		4						
				2			4	
			Ο		Ο			
	?			0				
						?		5

4		1							
	4			5				3	
						Ο			
							5		
		?							
			0						
	6				2			1	
							1		5

# Ouroboros

#### 2020

A random idea that loans something from Tapa; the idea seemed fun enough.

- Draw a line from every circle in the puzzle so that the line ends up next to another circle, pointing towards it. In a completed puzzle the lines and circles must together form a single non-branching loop.
- Two lines can never visit the same cell, and a line may not visit cells it has already visited.
- Only one line may start from every circle, and every circle may have only one line pointing towards it.
- The clues contain two numbers, one of them circled:
  - The circled clue indicates how many separate lines (i.e. lines that originated from different circles) visit the 8 tiles around the clue.
  - The non-circled clue indicates how many cells with a line segment in them are in the 8 tiles around the clue.
  - So, for example, the clue "(2) 4" says that 4 tiles around the clue contain line segments, and those 4 segments belong to 2 lines originating from different circles.
- If a clue is marked with "?", it can never be zero.
- Just as a reminder: unlike in the other line-drawing puzzle types so far, U-turns **are allowed** in Ouroboros (and in all the puzzle types after it, unless otherwise stated).



## **Ouroboros puzzles**



2.









### 6. This one is called **Turbouroboros**!

1?																			1 ?
		<sup>2</sup> 5							<sup>2</sup> 6						<sup>2</sup> 4				
	<sup>2</sup> 5				? 3						<sup>3</sup> 7						22		
												0							
			1?	0							<sup>2</sup> 5					0			
							22									? 2			? 5
	0									13									
							26								?4	? 3			
24				00				0		?4			2 <sub>5</sub>						
		0						0								1 <sub>5</sub>			?4
22			2 ?					0											
						1 <sub>7</sub>			28						<sup>1</sup> 1				$^{1}_{4}$
			?2	? 3								?4							
					0				1 <sub>7</sub>									0	
? 3			13			0						00							
								? 3							0	23			
		0	0																
		4?						00						1 <sub>5</sub>				2 <sub>7</sub>	
0				27						<sup>2</sup> 6							27		
<sup>2</sup> 2			0				0												1 ?

# Seaweed

#### 2020

Now we start to get into the more unusual territory. I've done some updates to these rules since I first made the type; I hope the updated ones are somewhat more understandable.

- For every symbol in the puzzle (i.e. a number or "?"), draw a line that takes as many steps as the symbol states. One end of every such line must be next to its symbol, pointing towards said symbol. "?" can't be zero.
- The other end of every line can be at one of the following:
  - on a circle. Only one line can end at a single circle; every circle must have a line start from them.
  - at another line's horizontal or vertical straight segment. Only one line may end at a given horizontal or vertical straight segment.
    - The end of a line that points towards its symbol is not a valid point for another line to end at.
    - The segment must be straight; a line can't end at a cell where another line turns.
- The lines may not intersect, and there may not be a line that doesn't have one end pointing at a symbol (with the line being the only one pointing at that symbol, and its length being equal to the symbol's value), and the other end at either a circle or at another line's valid segment.
- The lines may not go over clues or empty greyed-out cells.
- If one looks at the path a line takes from one end to the other, it may only ever face in two directions over the course of that path. For example, if a line starts off at a circle facing upwards, and then turns left, it cannot afterwards face downwards or rightwards.





## Seaweed puzzles:



2.

1.









3	•	*	*	•	<sup>4</sup> 6
*	•	*	*	?	•
*	$\odot$	*	*	•	•
٠	•	*	•	•	•
٠	•	•	•	•	•
*	•	*	*	•	<sup>3</sup> 6



4 4	٠	•		•	•	•	?	?
•	٠	٠	٠	•	•	*	2	•
•	•	٠	٠	٠	•	•	3	•
	•	•		•	•	•	•	•
5	٠	٠	$\odot$	$\odot$	٠	*	*	•
•	•	•	•	•	•	•	•	•
•	٠	٠	٠		•	•	•	•
•	•	•	•	13	•	•	2	•
?	•	•	•	2	•	*	+	??

# Crossstitch

#### 2020

I pondered about a genre where you have to cross two paths as if making a crossstitch; in the end it turned out that it might be better to have them be more of a rare element than a constant one. The idea works fairly well, I'd say!

- Draw two non-branching loops on the puzzle. They may move only diagonally from point to point.
- The two loops may intersect each other, but only when both are between points (as in, the two may never visit the exact same point). The loops may not visit points they have already visited again, and thus not intersect themselves, either.
  - There can't ever be intersections between the two loops right next to each other, so that the two crossings share two points. Two diagonally adjacent crossings, so that the two share one point, are fine.
- The lines may not go through clues.
- There are two types of clues, ones within a circle and ones with an arrow:
  - Circled numbers indicate how many of the four dots around the number are visited by one of the loops. Therefore, if there's a circled number 4, every dot surrounding the clue must be visited by the loops.
  - Numbers with an arrow indicate how many intersections between the two loops are in total in the direction of the arrow, counting from the clue until either the next clue (of either type) or the edge of the puzzle.
- If a clue is marked with "?", it is never zero.



## **Crossstitch puzzles**



2.

1.











# Oddstitch

#### 2020

This seemed like a way too obvious a variant not to try; however, it turned out to have quite a few quirks of its own! I like this a bunch, although making puzzles for it is fairly slow.

- Again, draw two non-branching loops. However, this time the loops must move two steps on one axis and one step on the other; that is, the loops move in knight's leaps.
- The loops may only make turns that are 90 degrees or higher. See below for examples of accepted vs. non-acceptable turns. (Moving straight is allowed.)
- The loops may intersect each other and this time there's no limitation on consecutive crossings. They still may not visit the same point twice, visit points the other loops already visited, or intersect themselves.
- The clues are the same. The loops may cross in a way where the actual crossing happens exactly between two rows or columns; in this case, both rows/columns are counted as having a crossing in them. See below for extra details.



## Oddstitch puzzles





# Rollercoaster

#### 2020

This is maybe more of a proof of concept that a full-fledged puzzle type. I like the general idea but the puzzles themselves are perhaps overly simplistic.

- Draw a single unbranching loop. It may not intersect itself or visit cells it has already visited. The loop may not go over clues or greyed-out cells.
- Every horizontal section of the loop must have exactly one "support line"; a line drawn from one of the straight horizontal segments downwards until it meets a greyed-out cell. The support line can't stand on the bottom edge of the puzzle, it can't turn, and support lines may not intersect the loop or vice versa, nor may the support lines visit cells visited by other support lines (however that might ever happen.)
- Support lines may not start from cells where the loop turns, only straight horizontal segments.
- There are two types of clues, numbers and circles:
  - ° Circles indicate a greyed-out cell that must have a support line landing on it.
  - Numbers indicate how many cells that contain a loop segment are in total in the 4 cardinal directions, counting from the clue until either the next greyedout cell or the edge of the puzzle. In other words, number clues work like the ones in Sentinels. ("?" can't be zero.)



## Rollercoaster puzzles



2.

1.



3.



34

## Sokosoko

#### 2020

This is probably the most clunky genre in here. I pondered if it'd be possible to implement some kind of an abstraction of classic block-pushing puzzle gameplay in a paper puzzle format. The answer is... eeehhh, maybe kinda but not really.

- The puzzles have 4 types of elements: a circle, some hollow squares, black walls, and red crosses.
- Your goal is to draw a line from the hollow squares to every red cross, and to draw an unbranching loop from the circle. Every red cross must have a line drawn to it, but not every hollow square must have a line drawn from it.
- You may only draw a line from a hollow square if the loop drawn from the circle goes by one of the 4 cardinally adjacent tiles next to the hollow square.
- No line may intersect itself or visit a cell it has already visited, but lines may intersect other lines, provided that both are moving straight forward (i.e. no line can enter a cell where another line does a turn).
- Every hollow square forms an obstacle somewhere. If a hollow square has no line drawn from it, it forms an obstacle in the cell it is currently in. If a hollow square has a line drawn from it, it forms an obstacle in the cell the line ends in. Other lines may not enter a cell where a hollow square has formed an obstacle.
- It is not required to draw a line from every hollow square, and the line drawn from a square is not required to end up on a red cross.
- The obstacles formed by the hollow squares also block the path of the loop drawn from the circle.





## Sokosoko puzzles



2.


# **Hiking Track**

#### 2020

This came to be quite suddenly after some pondering about turns in line puzzles. The main sources of inspiration were the puzzle types Hotaru Beam and Amibo, although later on I saw Ichimaga and noted that it was even closer to this type. People have seemed to like this genre!

- Draw lines between cells with clues so that they form a fully interconnected network.
- Lines may not intersect or branch outside of the clue cells.
- The clue cells have two numbers as clues, a circled one and an uncircled one:
  - The circled number indicates how many lines leave from the clue cell (so the maximum value for this clue is 4).
  - The uncircled number indicates the total amount of 90-degree turns the lines leaving from the clue cell do. Clue cells that share a line will both count the turns done by the line in their totals.
- The lines may not go over greyed-out cells.
- There may not be more than one line shared by two clue cells.
- A line may not loop back to the clue cell it came from.



## Hiking Track puzzles

	23			
21			34	
	22			
		33		
<b>4</b> <sub>3</sub>			2	
		23		

2.

1.

2 <sub>5</sub>					20	1	
			34				
		2					
		<b>4</b> <sub>9</sub>					13
24					43		
					2		
				35			
	1	21					1,

24			34		
13	ⓓ₃			39	
		17			
	3,9			<b>4</b> <sub>7</sub>	

				23			
		12					33
13					23		
			4				
	22					35	
				23			
		24					33
1					2		

# **Mountain Climber**

#### 2020

Oh no, another quite a wacky genre! Nevertheless, I'm quite happy with this one; the rules are complicated but I feel that it has good flavour to it.

- Divide the grid into areas using lines so that every separate area has exactly one flag in it, and then draw a line ("climbing path") starting from one flag that visits all of the flags and ends on one of them.
- The lines used for dividing the grid ("dividing lines") may not visit cells already visited by themselves or other dividing lines.
- The dividing lines can only turn in increments of 45 degrees. When moving in a cardinal direction, a dividing line may move at most 3 steps before having to turn, and when moving in a diagonal direction, a dividing line may move only one step before having to turn.
- Every area created by the dividing lines has a "height value" that is equal to how many dividing lines surround the area in total. The outermost area lined by the edges of the puzzle has a height value of 1, and for example an area that was separated from the edges of the puzzle by 2 dividing lines would have a height value of 3.
- If a flag has a number, the area it is enclosed in must have the same height value as the number on the flag.
- The plus symbols are ladders. A single dividing line may pass through such a symbol, but only if the dividing line is moving in a straight cardinal direction and doesn't turn on the cell containing the plus symbol.
- The climbing path may not move diagonally. It may not intersect itself, and may visit cells containing a dividing line only if that cell also contains a ladder.
- The black circles are boulders. No line may enter a cell with a boulder.







## Mountain Climber puzzles















# Ilotulite

2020

I wanted to make a puzzle type to celebrate New Year's Eve; the first attempt failed miserably, but I'm feeling more confident about this second attempt.

### **Rules:**

- For every number at the edge of the grid, draw a line ("flying path") and shade cells (to form the "explosion"). The lines may not turn and multiple lines may not intersect each other, and the shaded cells may not coexist in the same cell with any lines or other shaded cells.
- The number indicates how large the explosion at the end of the flying path must be (i.e. how many cells must be shaded). If the number is 1, only the cell the flying path ends at must be shaded, if the number is higher than 1, a cell must be shaded in a line in all 4 diagonal directions from the flying path's endpoint for every explosion size value beyond 1. That is, if the explosion has a value of 3, you must shade the flying path's endpoint, and then 2 cells in a line in all four diagonal directions from there.
- The full explosion must be able to fit on the grid.
- The shaded cells from the explosions must together for a fully connected mass. No worries about fully-shaded 2x2 shapes here, though.
- The numbers at the edges are sectioned into small compartments by lines. The line corresponding to a number may be drawn from any cell within that compartment (although obviously two lines may not be started from the same cell).
- The black circles mark spots that may not have a line nor a shaded cell.





45

## Ilotulite puzzles



2.





# Curfew

#### 2021

This took a couple attempts, but in the end I'm quite happy with the result! It resembles the existing puzzle type Haisu more than a little, though, and was directly inspired by it.

- Draw a single unbranching loop that visits every circle in the grid.
- The line may not intersect itself or visit cells it has already visited.
- If an area contains a circled number, that number indicates how many cells the loop may and must visit in that area before leaving every time it enters that area.
  - For example, if an area contains the number 4 and the loop visits the area twice, it must both times go through exactly 4 cells before leaving.
- If an area contains an empty circle, it has a specific numeric value just like numbered areas, but that number is unknown. Therefore every time the loop enters those areas, it must visit the same amount of cells. The number may not be zero.
- If an area contains multiple circled numbers, the additional numbers are only significant in that they must also be visited by the loop; the numeric value of the area is still equal to the circled number.



## **Curfew puzzles**



2.







		4			
					2
	$\bigcirc$			2	
			3		
	5			3	
2					1

## Roots

2021

Pretty much a continuation to the Seaweed genre, although heavily simplified. I quite like the basic idea thanks to how easy it is to grasp!

- Draw a line for every black dot cross in the puzzle, so that the lines end on their respective symbols.
- The lines that end on crosses are "main lines", and they can be of any length and must start on a circled number.
- Lines that end on black dots are "side lines", and they must branch out from main lines and be exactly the length indicated in the circled number the main line begins from.
- The side lines may only branch out from main line segments that move straight forward; i.e. a side line can't branch from a point where a main line turns.
- None of the lines may intersect and lines can't visit spots other lines have already visited. The lines also mustn't go over grey cells.
- Only one side line may branch from a given straight segment in a main line.



**Roots puzzles:** 



1.

2.



# Lohkous

#### 2021

A very abstract puzzle, but with some interesting rules, I'd say. One of my favourites.

- Divide the puzzle into areas so that every area has exactly 1 clue in it.
- There may be no incomplete lines within areas; every area must comprise only of its outline and the cells within it.
- The numbers in a clue indicate all the allowed widths/heights in the shape of the area the clue is in. That is, no matter where you count, a segment of the area may not have a width or height value that doesn't appear in the clue.
- All the numbers given in a clue must appear somewhere in the area the clue is in as width and/or height.
- Note that "width" and "height" here do not refer to lengths of the lines that form the area nor the total width/height of the area. See below for an example.



















# Diagaquarium

2021

Aquarium is an existing genre, but after seeing people on the Baba Is You fan Discord server post some of those, I got an idea for a slight variant. I like this a bunch!

- Shade cells on the grid. When shading cells within an area, the bottom-most cells must be shaded first. You can think of this as as if the shaded cells were bits of water and had gravity, thus accumulating on the bottom of an area first, with the edges of an area being walls enclosing the water. There may not be unshaded cells below shaded cells within a single area.
- The numbers on the edges indicate the total number of shaded half-cells on that row/column. A fully-shaded square cell contains 2 halves, and counts as 2 for these clues.
- The top of a shaded section within an area must be even; that is, the surface of the water may not have notches and such.
- The surface of a single shaded shape must be everywhere on the same height, except unless the top border of that area limits that somewhere.
- If an area would have two unconnected shaded shapes, their surfaces may be on different levels.
- Really, the rules are fairly intuitive if you think of it as filling containers with water. It's surprisingly hard to convey the rules without that mental image.



## Diagaquarium puzzles:





2.

1.

## Alike

#### 2021

Many of the puzzle types I've come up with have been about drawing lines, but shading puzzles were what got me initially interested in making paper puzzles, so I spent some time tinkering and came up with this shading puzzles. It feels a bit limited but fun to solve. I think part of the idea came from an existing paper puzzle type but can't recall exactly which one.

- 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.
- 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.



## Alike puzzles:

			3
	3		

2.

2				
			3	
		3		

3.

		2		
	4			
	5			
		3		

			5	

# Chainlink

#### 2021

After making Alike, I thought that a funny variant name would be "Alike-in-chains". To reach this height in humour, I started trying to implement a chain-themed puzzle. I actually went through a couple different designs; the "links in a chain" design idea turned out to be clunkier than I would've hoped. The finished puzzle is still clunky, but I'm quite happy with how it works!

- Draw rectangles on the grid, with line segments ging from point to point.
- Every rectangle must have at least one corner within another rectangle.
- The rectangles must form a single structure (loops are ok) where every part can be reached from any other part via the interlocked corners mentioned above.
  - (So if a rectangle would overlap another without either of them having a corner inside the other, they'd not be considered connected).
- A rectangle may not be fully enclosed by another single rectangle. It's ok for a rectangle to have all its corners within other rectangles, as long as there are more than one.
- The numbers indicate groups of points with no line segments drawn to them. A clue with 3 would thus refer to 3 points with no line segments next to each other, with the clue being one of them (see the example puzzle for extra clarification).
- White clues must be within a rectangle (or multiple rectangles, that's fine too).
- Black clues mustn't be within any rectangles.
- Two clues may not be in the same area/group of points.





## Chainlink puzzles:



2.







# Tonttiraja

#### 2021

I had an idea for a line-drawing puzzle but couldn't quite figure out what to do with it. While testing out some concepts with it, I stumbled into a somewhat different idea and that developed into Tonttiraja. The name is Finnish for "(building) plot border". The inspiration for "no identical adjacent segments" comes from **Le Slo**'s "Bonsai" puzzle

#### genre.

- Divide the puzzle into areas so that every area has exactly 1 clue. You may not draw over the clue cells.
- The lines may branch, but there may not be plus-shaped crossings, so a cell can only have a T-junction, turn or a straight line (or be empty). There may not be any dead-ending, dangling lines.
- There may not be two directly connected adjacent cells with the same type of line structure (T-junction, turn, straight line).
- The clues indicate how many empty cells are within that area (i.e. cells with no line segments in them). The clue cell is counted as an empty cell.
- An area is continuous as long as it's not blocked by line segments or the edge of the puzzle, so the empty cells within an area may be quite far from each other (see example).
- You may draw a line to the edge of the puzzle from any of the border cells, as long as the other rules aren't broken by doing that.



## Tonttiraja puzzles:

1	
т.	

2	•	1	•	1
•	•	•	•	*
•	•	•	2	•
•	1	•	•	•
•	•	•	•	•

2.

•	•	•	?	•	•
•	•	•	•	•	•
•	•	•	•	•	2
•	•	?	•	•	•
4	•	•	•	•	1
•	•	•	3	•	•

•	•	*	•	•	•	•	+
•	1	•	•	•	•	•	•
*	•	•	•	•	2	*	•
*	•	3	•	•	•	•	1
10	•	•	•	•	•	•	•
*	•	•	1	•	•	•	*
*	•	•	•	•	•	•	+
•	2	•	•	•	3	•	•

*	•	*	•	•
3	•	4	•	•
*	•	•	•	•
•	•	•	•	3
*	*	1	*	•

•	•	•	*	*	٠
•	•	•	2	•	•
•	•	•	•	•	4
?	*	3	٠	٠	•
•	•	•	•	•	•
*	•	•	•	4	•

6.

•	6	•	•	•	3	*
•	•	•	1	•	•	*
4	•	•	•	•	•	•
•	•	•	•	•	1	•
•	?	•	•	•	•	•
•	•	•	•	•	•	•
•	*	•	•	•	•	*

4	•	*	*	*
•	•	•	?	•
•	2	•	•	•
•	•	•	•	•
?	•	+	+	+

# Skating

#### 2021

I was pondering on a puzzle type that'd combine shading cells and drawing lines, and ended up with this. The cell-shading got a bit of a smaller role than what I at first intended, but I was ultimately very happy with the concept, at least once I actually made a puzzle with it and got some feedback!

- Shade some squares on the grid and draw a single, nonbranching loop from cell to cell.
- The cells marked with X may not be shaded over or entered by the loop (and you may not add more X's into the puzzle).
- The loop line may only turn when it's facing either the edge of the puzzle or a shaded cell. In other situations the loop may only go in straight lines.
  - This means that the loop is directional; the example puzzle below has arrows indicating the direction for clarity.
- The loop may not go over shaded cells.
- There may not be two shaded cells orthogonally adjacent to each other.
- In a finished puzzle there should be no empty cells; every cell must either have an X, be shaded or have a part of the loop in it.


## Skating puzzles:



3.

Х			Х
X	X	X	

1.



5.

4.



6. **Strangecreation** made a solver for Skating and used it to find this really neat 6x6 puzzle! Thank you!



# Shared field

#### 2021

I briefly pondered on the idea of multiple areas overlapping in a puzzle and implemented rules around this. The result doesn't work quite as well as it could and could probably be improved a lot, but does the job ok.

- 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).
- The loops may only move orthogonally. Two loops can cross but only in a plusshaped pattern so that neither loop turns at the point of intersection.
- Other than the crossing mentioned above, the loops can't revisit points already visited by a loop.
- A loop can contain letters other than the intended ones (i.e. the A loop can contain letters other than A).





Shared field puzzles:





# Limited Alike

#### 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!

- 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:

-				
		4		

2.

5					
				6	

## **Field trespass**

#### 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!

- 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 45degree 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:







# LITSalike

#### 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!

- 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:

I recall that some of these had problems with their solutions, so I'll have to look at those and fix them before listing any here. Sorry!

# **Corner meeting**

#### 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!

- 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.



Corner meeting puzzles:



2.

1.





# Nodeloop

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?

- 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.



1.

# Loop battle

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.

- 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:

		2

2.

		4

# Plot twist

#### 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!

- 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.





1.

## Snake nest

#### 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.

- 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:

		4	
			3
	3		

2.

1.

			7		
				2	3
	5	2			
4					
		4			

		2		
		5		
			5	
	2		2	
	6			

		4		
3				
4	5			
6	3			

# **Triangle field**

#### 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?

- 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:



# Bunnyhop

#### 2022

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.

- 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:**



2.

1.

# Unrectangles

#### 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.

- 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.
  - $^\circ~$  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).

?	3	2	
		3	2
			4
	5		





## Unrectangles puzzles:

4			5	5
5				
3	2	8	6	
	?		?	

2.

1.

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

101

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

# Bricklayer

#### 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.

- 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 puzzles:



2.

1.




# Piirilevy

#### 2022

Piirilevy is Finnish for "circuit board". I had played the boardgame A Feast for Odin, and was fascinated by the way pentominoes had a large-but-limited set of unique configurations. After a failed attempt at turning those ponderings into a paper puzzle, I came up with this. It's simple but works! Maybe.

- Draw paths between dots so that every cell contains a path segment. The paths may not intersect or branch, and each path must start and end on a dot.
- The paths may not cross over dots, or start/end on the same dot (or start/end on a dot another path starts/ends on).
- The number in the top-right corner of the puzzle indicates the maximum number of turns a path can take (i.e. the number of cells where the path performs a 90-degree turn).
- There can never be two orthogonally adjacent paths with the same number of turns.
  - To clarify, two paths are orthogonally adjacent if two cells they visit are next to each other.



**Piirilevy puzzles:** 

			1
0	0	0	0
0			0
0		0	0
0			

					3
		0			
0		0		0	0
		0			
	0				
	0		0		
0	0				0

4.

							4
0		0	0				0
	0						0
0					0		
0							
			0				
		0			0	0	0
	0	0		0		0	0
0	0			0			

## Uncheckers

#### 2022

This type builds upon things I had tinkered with in e.g. Snake nest and Piirilevy. I was intrigued by the idea of "two shapes of the same type can't be orthogonally adjacent", and though that in a shading puzzle environment that restriction in some ways imitates a checkerboard pattern. Quite happy with the result!

- Shade every cell in the grid in one of two colours. Shaded cells of the same colour must form clusters/regions of connected cells of the size indicated in the top-right corner of the puzzle.
- Cells in a cluster/region cannot connect through a thick line.
  - Note: the cells in a region can still be adjacent with a thick line between them, as long as the region is connected via other means (see example below).
- Two regions of the same colour can't be orthogonally adjacent, even if there's a thick line between them.
  - $\circ~$  For clarification on orthogonal adjacency, look up the rules for Piirilevy.
- Dark cells should be treated like the edge of the puzzle and can't be shaded.



This would be a valid region.
Uncheckers puzzles:



2.

1.

		4

109



# Mark the spot

#### 022

I had pondered about a puzzle type based on drawing crosses on a grid for some time, and this was the first one that felt like it had a bit more potential. Ultimately it turned

out to be too complicated, but I'd say the idea has some merit at least.

- Draw crosses onto the grid so that every unshaded cell contains a cross segment.
  - The crosses are drawn by extending 4 lines of equal length in all four diagonal directions from the center of a cell.
  - The lines must either terminate within the cell they started from, or at the center of another cell if they extend outside the initial starting cell.
- The crosses may intersect at cell corners.
- Each cross may only intersect with exactly 1 other cross at cell centers. Note that two crosses intersecting like this may intersect in more than one cell, they just may not intersect with any other crosses at cell centers.
- Two crosses may not have their lines overlap.
- No part of a cross may be within a shaded cell.
- The centers of two crosses of equal size may not be orthogonally adjacent, and a cross center may only be diagonally adjacent to a maximum of 1 cross of equal size.
  - Note that the diagonal adjacency rule effectively only applies to the smallest crosses, the lines of which don't extend beyond the starting cell.



## Mark the spot puzzles:

2.

-				

## LITOS

### 2023

This is pretty much what the previously-mentioned LITSalike was building for! It was fun to get to use a clue type I hadn't ever utilized before.

- Divide the grid into tetromino-shaped areas so that every cell is part of a tetromino. The tetrominoes may be in any orientation, flipped etc.
- Two tetrominoes of the same basic shape can't be orthogonally adjacent to each other, even if they're rotated/flipped/mirrored differently.
  - $\,\circ\,\,$  Note that L/J tetrominoes are are of the same basic shape, same for S/Z.
- The clues indicate that the clue cell must be part of a tetromino area of the same shape and orientation as shown on the clue.
  - Each tetromino may contain a maximum of 1 clue.



## LITOS puzzles:



2.

1.

		┣	

	٦			
			۲	
L				

			Ч	
	—			
			⊥	
Г				



Γ		

# **Mirror loop**

#### 2023

I think the idea for this came from a random puzzle game screenshot that reminded me that mirrored shapes are interesting. I've pondered about the concept previously with e.g. galaxy-type shading puzzles; this seemed like a fairly different-but-elegant ruleset.

- Draw a single unbranching loop from cell to cell; the loop doesn't have to visit every cell.
- The blue thick lines are 'mirrors'. The cells extending from a mirror must be symmetrical to the equivalent cells on the other side of the mirror, up to the nearest edge of the puzzle or another mirror.
  - Note that a mirror doesn't only reflect the nearest cell on either side, but rather all cells up to the nearest other mirror/puzzle edge.
  - Note also that this means that if a mirror is e.g. 2 cells away from the nearest other mirror (or the puzzle edge), only 2 cells on either side of the mirror need to be symmetrical.
- Every mirror must reflect at least one loop segment.
- The loop may pass through the mirror lines (and this must be taken into account in how the mirror reflects the loop segments).



## Mirror loop puzzles:



2.

## **Equal measures**

#### 2023

There was a bit of a break between this type and the one before it. At first I attempted to make the format use a grid divided fully into regions, like an Alike and such, but people pointed out that a different approach using "cages" would make more sense. People have seemed to like this one a bunch, which is cool!

- Shade cells so that they form a single unbranching loop. The loop may not form 2x2 fully shaded structures, and two shaded cells may not touch diagonally unless there's a third shaded cell directly connecting the two to form a 90° turn.
- Even-sized regions must have an equal number of shaded and unshaded cells. Odd-sized regions have an additional shaded or unshaded cell, but otherwise follow this same rule.
  - For example, a region of size 5 would have either 2 shaded and 3 unshaded cells, or 3 shaded and 2 unshaded cells.
  - Outside of the marked regions there are no limitations to the numbers of unshaded/shaded cells.
  - Note that the puzzle itself doesn't count as a region, only the specifically defined ones within the puzzle.



## Equal measures puzzles:





2.

1.



	$\square$	

7.



# LITSilly

#### 2023

After half a year of not really coming up with new paper puzzle ideas, I somewhat randomly pondered about a LITS variant that "broke the rules" and came up with this. It has seemed pretty good in my opinion!

- Shade cells so that each region contains a tetromino shape. Square tetrominos are not allowed. Each region must contain exactly 4 shaded cells, i.e. the cells that make up the tetromino in said region.
- The shaded tetrominos must form a connected whole.
- Two tetrominos of the same basic shape (L, I, T or S) may not be orthogonally adjacent.
  - Note that for the purposes of this, mirrored/flipped versions of L and S tetrominos count as the same basic shape.
- Each tetromino must contribute to exactly one 2x2 shaded square.
  - $\circ~$  In contrast, in traditional LITS 2x2 shaded squares are not allowed at all.
  - A 3x2 shaded region is impossible to construct under these rules without at least one of the tetrominos it's made of contributing towards more than one 2x2 shaded region, so 3x2 shaded regions are never possible.
  - A single 2x2 shaded region can be formed by 2, 3 or 4 separate tetrominos.



## LITSilly puzzles:

2.

1.



# Forceloop

#### 2024

After months of not coming up with new paper puzzle types, I kinda finalized some thoughts I had built up over time, inspired largely by the Nikoji puzzle type. Turns out this type is almost identical to Gemini Loop, but there are some slight differences too! I'm quite happy with this!

- Draw a single, unbranching loop that visits every cell with a clue. The loop may intersect itself.
- Each cell with the same clue letter must contain the same loop segment, and no two cells with a different clue letter may contain the same loop segment.
  - For clarity, 'loop segment' here refers to the specific configuration of lines within a cell. There are 7 unique loop segments: 4 90-degree turns, a horizontal & a vertical line, and an intersection.
- Questionmarks indicate unknown clue letters among the letters given on the grid. In other words, if you can see letters A-C on the grid, a questionmark must be either an A, a B, or a C.



Forceloop puzzles:

	В	А	С	
A			В	А
	D	С		
				?

2	
2	٠

1.

?				?	
	А		В		
	А	В		А	
С			D		
	Α			D	
		В			

128

?		В		D		D	?
	D				В		
		А	?			С	
	D		?		С		
		А					?
	В		С		В	С	
		В		?	А		
?							

		А			?	
Е	В	В		С	Е	
		С				
?		D	Е		G	D
	С	Е			А	
		F	G	В		
?		G				?

# **Super Forceloop**

2024

This seemed like a somewhat obvious continuation on the Forceloop idea, and upon experimentation turned out to be quite an interesting thing of its own right!

- Otherwise identical to Forceloop, except the loop segments in clue cells may not appear *anywhere* else on the grid, instead of just not on clue cells with a different clue letter.
  - In other words, if clue A corresponds to a vertical line passing through the cell, only cells with clue A may contain that specific configuration of lines.







## Super Forceloop puzzles:

?			?	В	
		А	С		
		?			
			?	С	
	Α				
			В	?	

2.

1.

А	?	?	?	?	
?		?	?		?
	?	?	?	?	?
?		?			?
D	?		?	?	?
В	Е	?		?	С

	?	?	?	?	?			
?						?		
?		?	С	С	С			
?	?	В			В			
?		?	А	А			?	
?			А					
	?	?						
						?	?	