I Made Some Paper Puzzles

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

Part I

By Arvi Teikari

Version 1.0c

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!)*

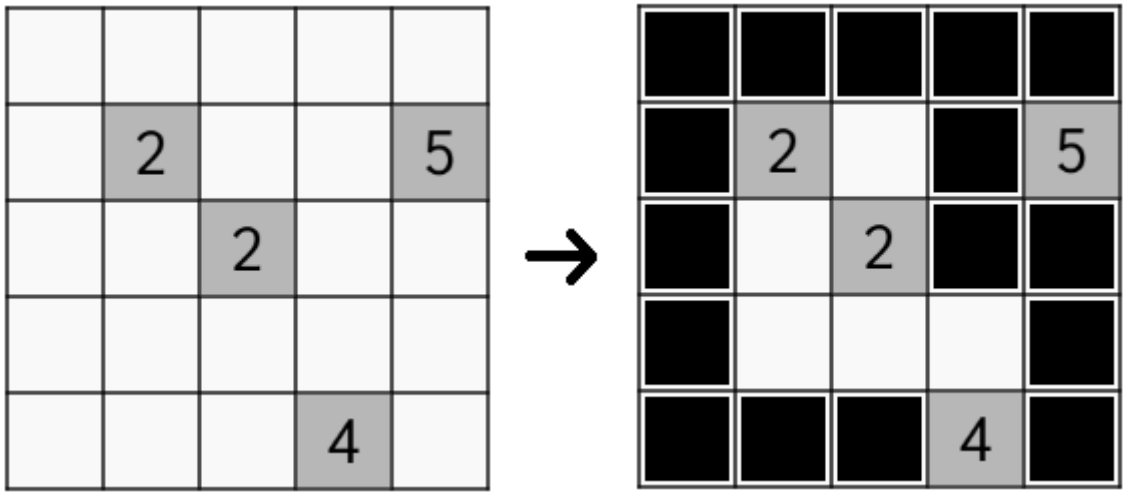
Canal View

11/2020

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:

Rules:

- 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

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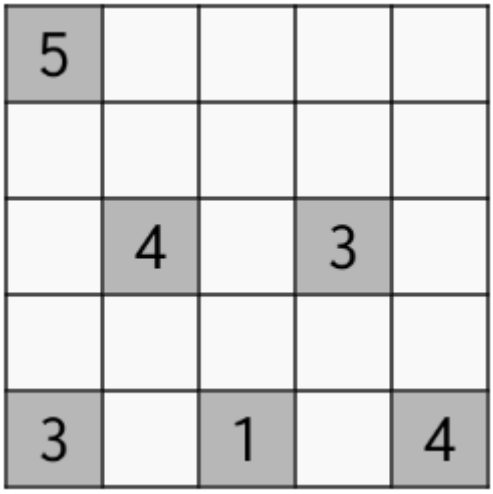

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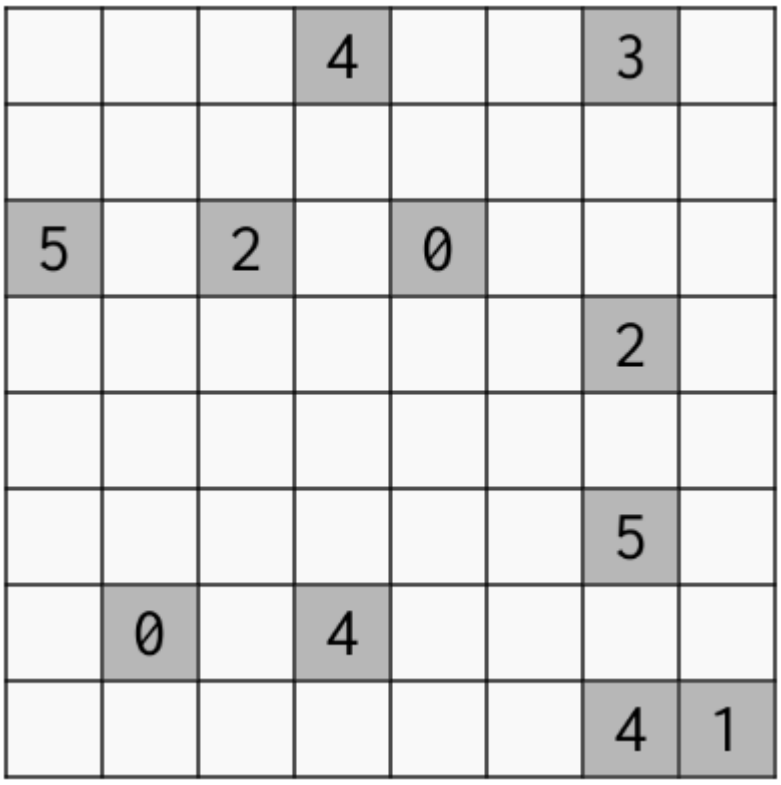

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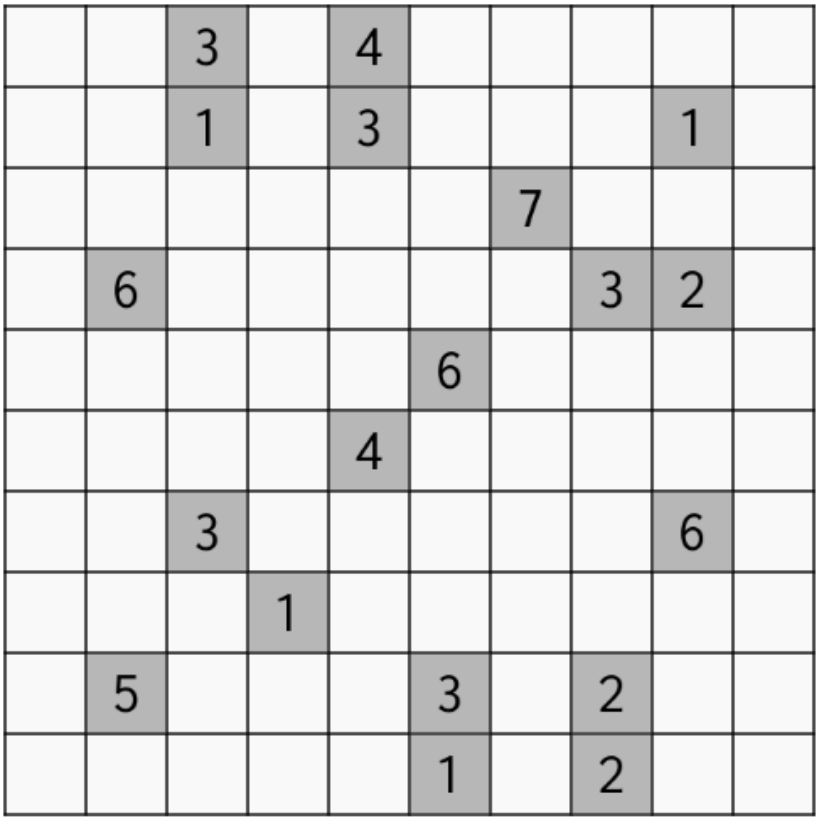

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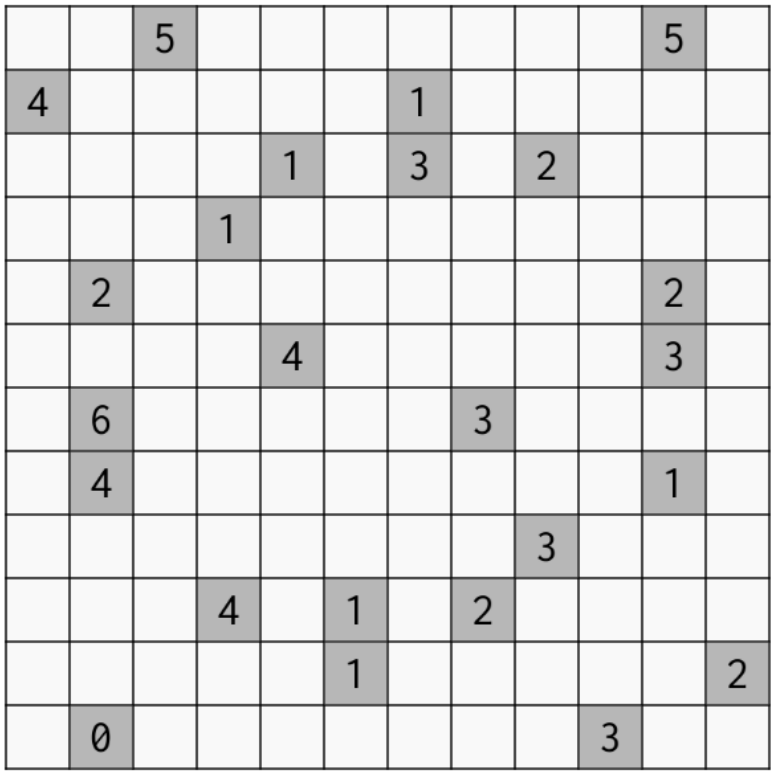

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Diaganal View

11/2020

A fairly funky variant of Canal View.

Rules:

- 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.

Diaganal View puzzles

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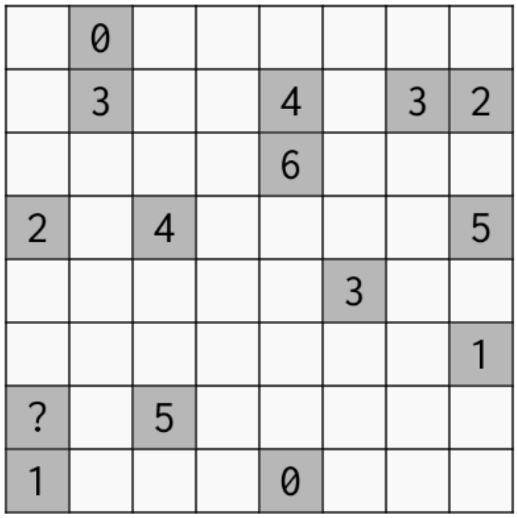

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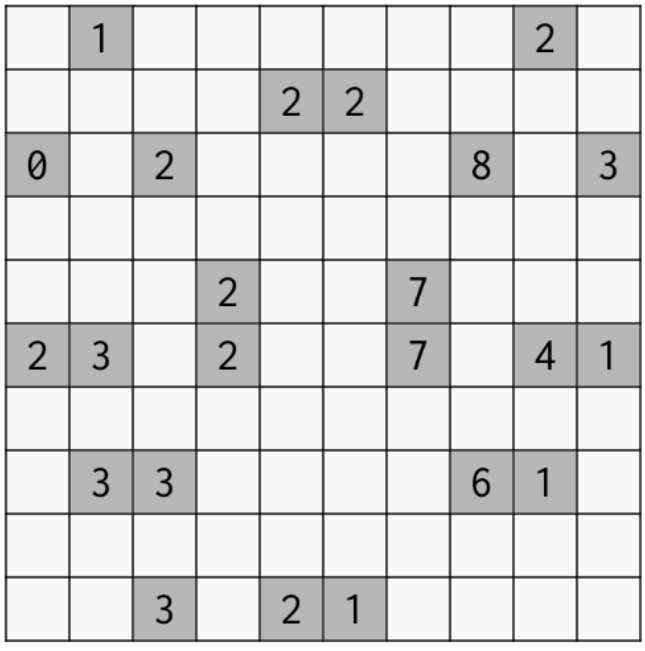


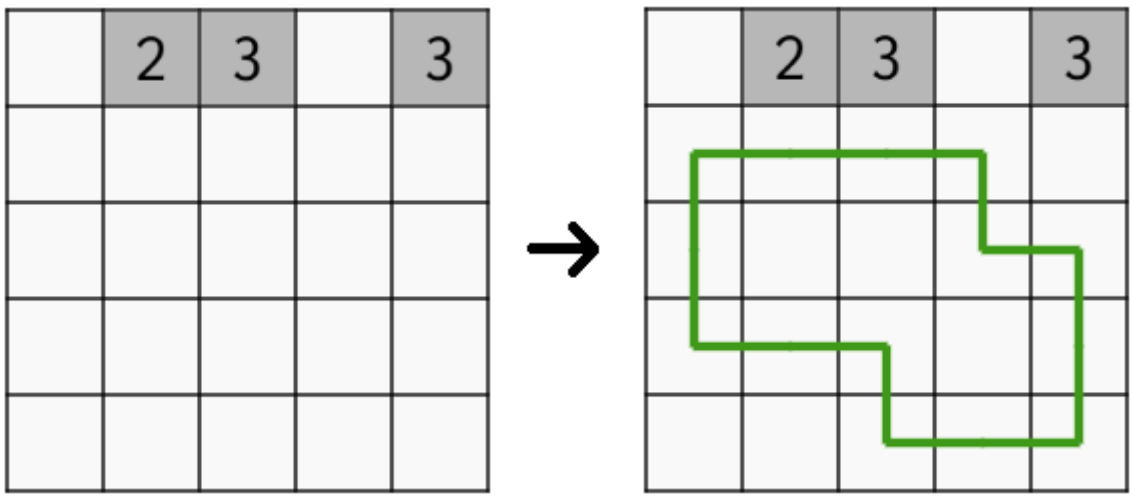
Sentinels

11/2020

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.

Rules:

- 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

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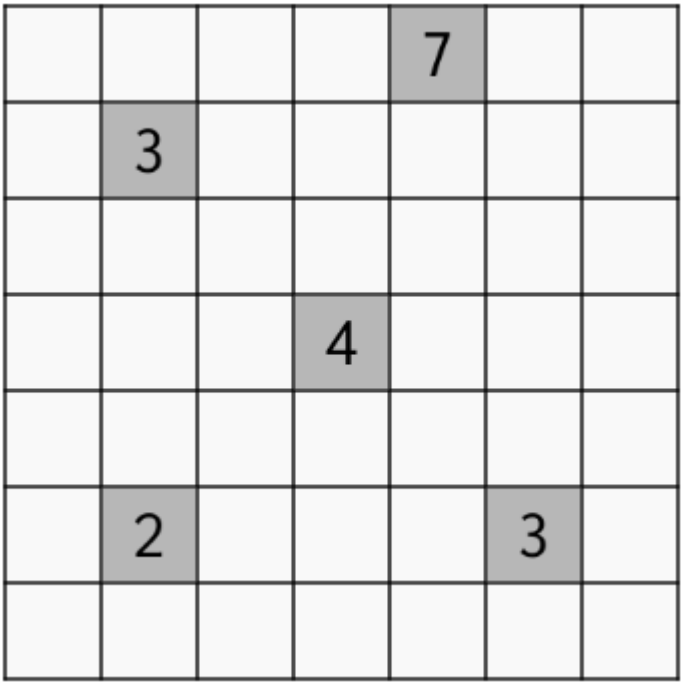

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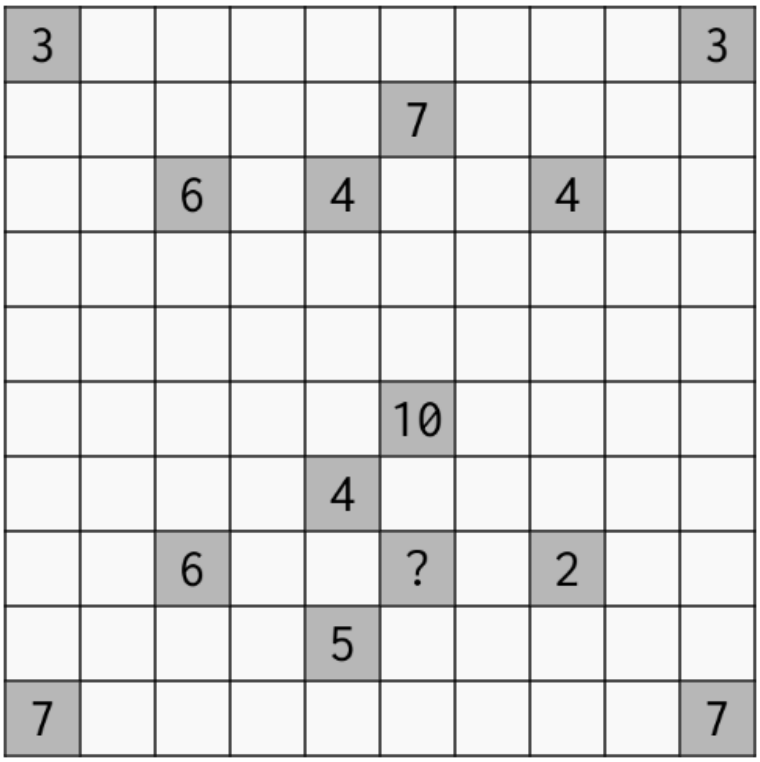

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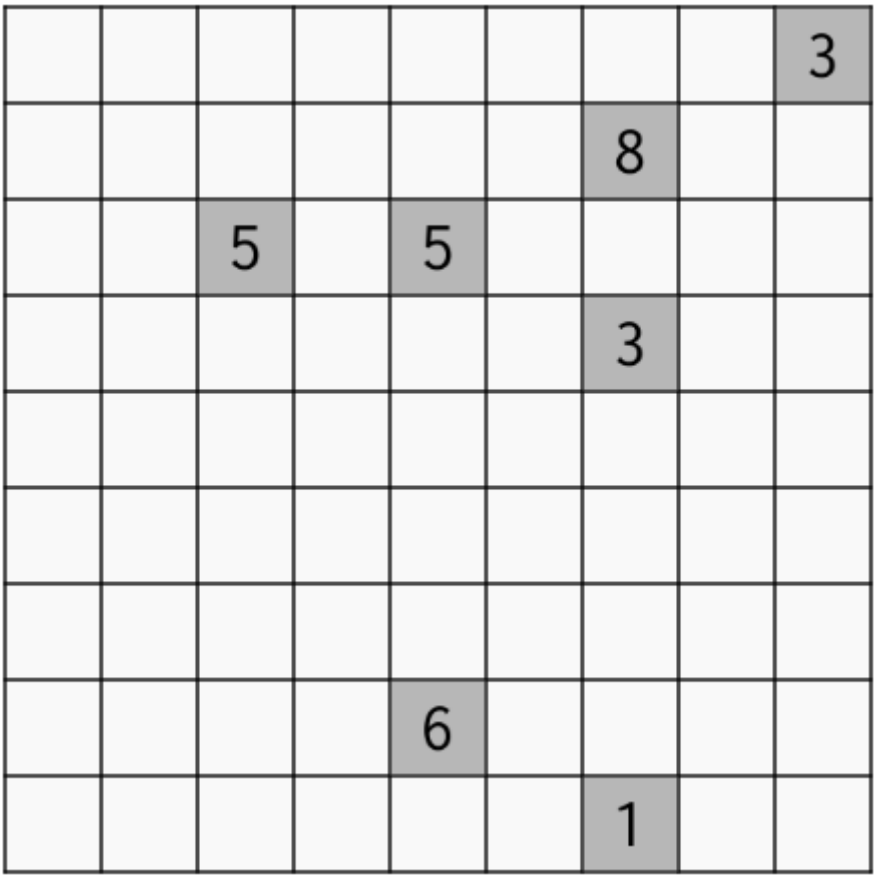


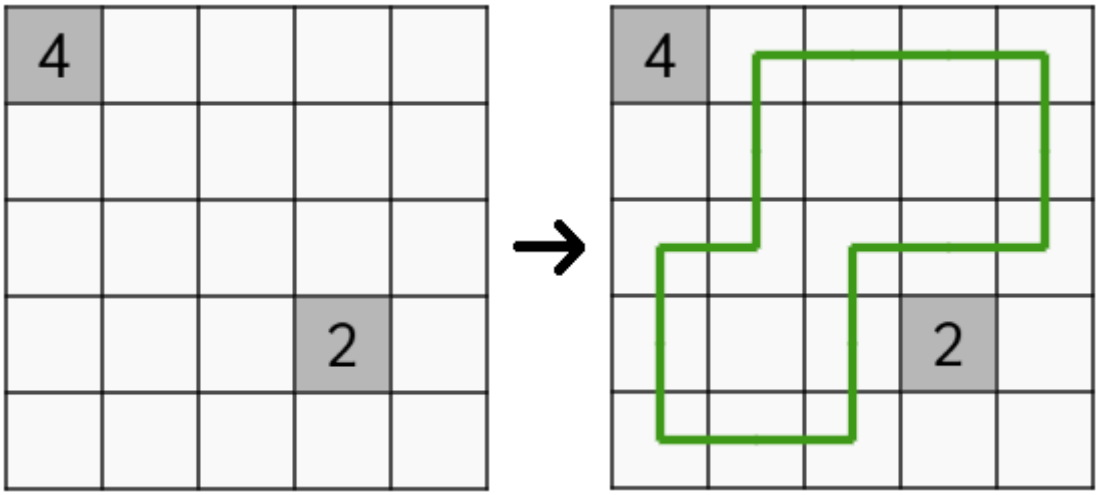
Sentinal View

11/2020

The missing link between Sentinels and Canal View.

Rules:

- 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

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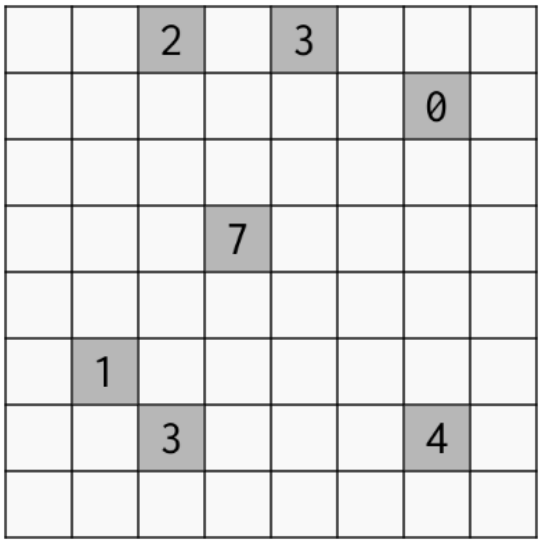

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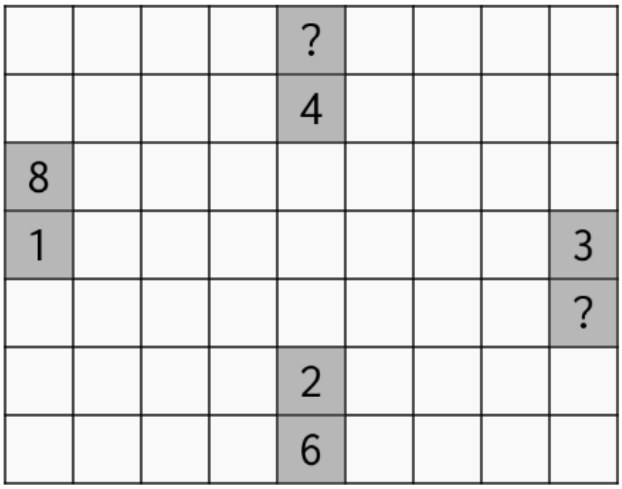

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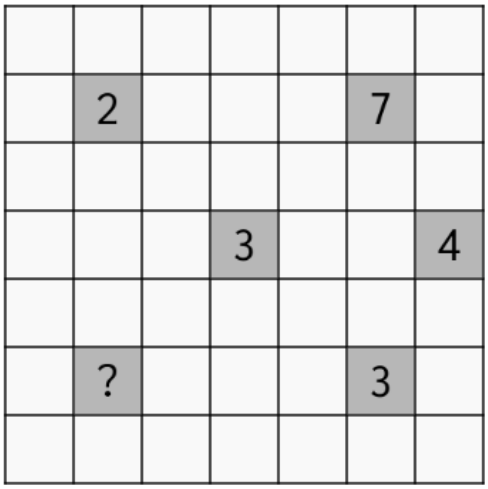


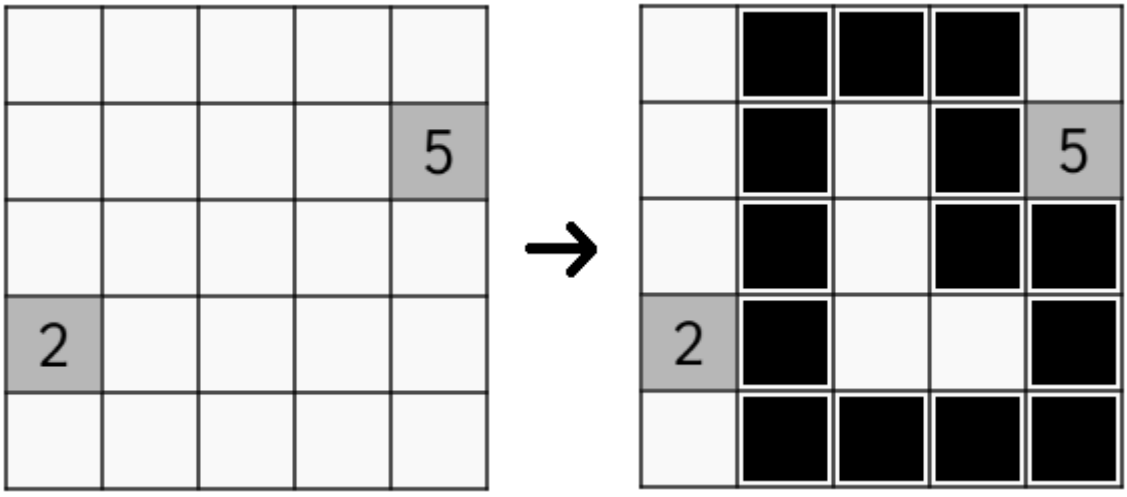
Celltinels

11/2020

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. Celltinels was also featured at the World Puzzle Championship 2022! Huge thanks to the organizers for reaching out.

Rules:

- 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

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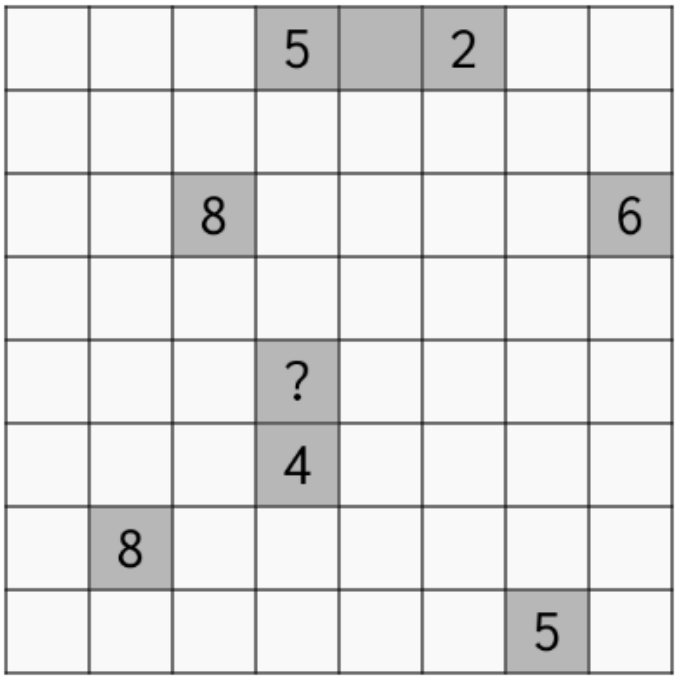

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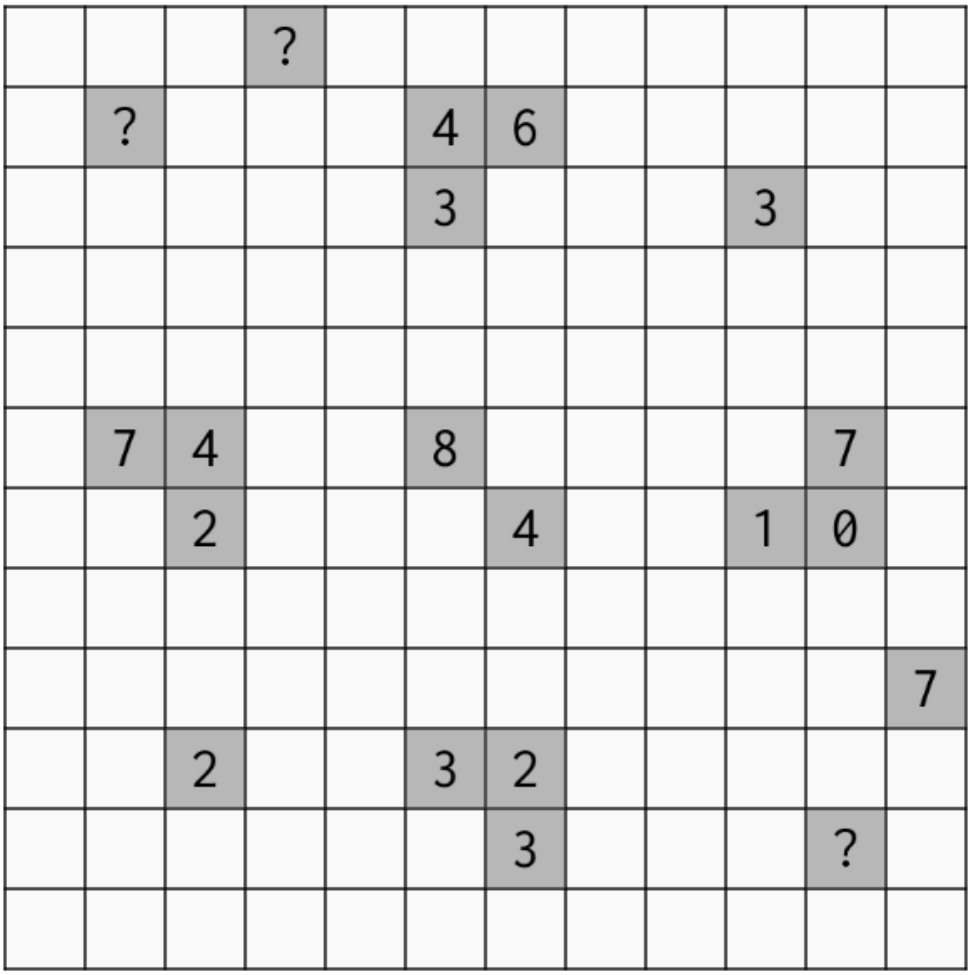

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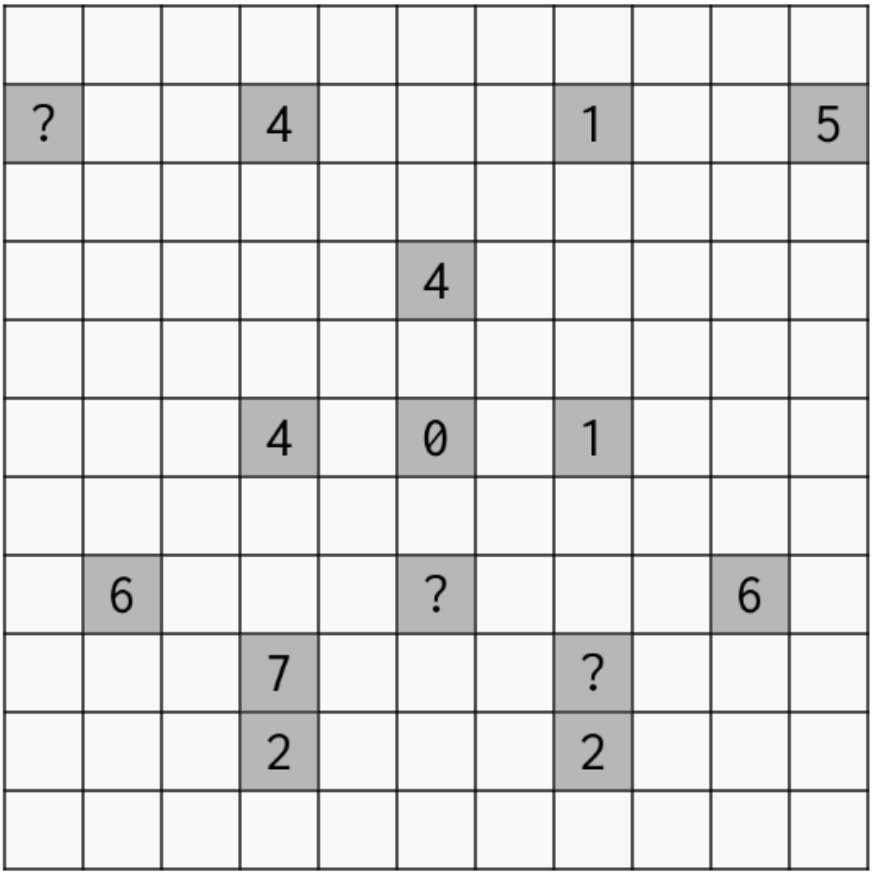

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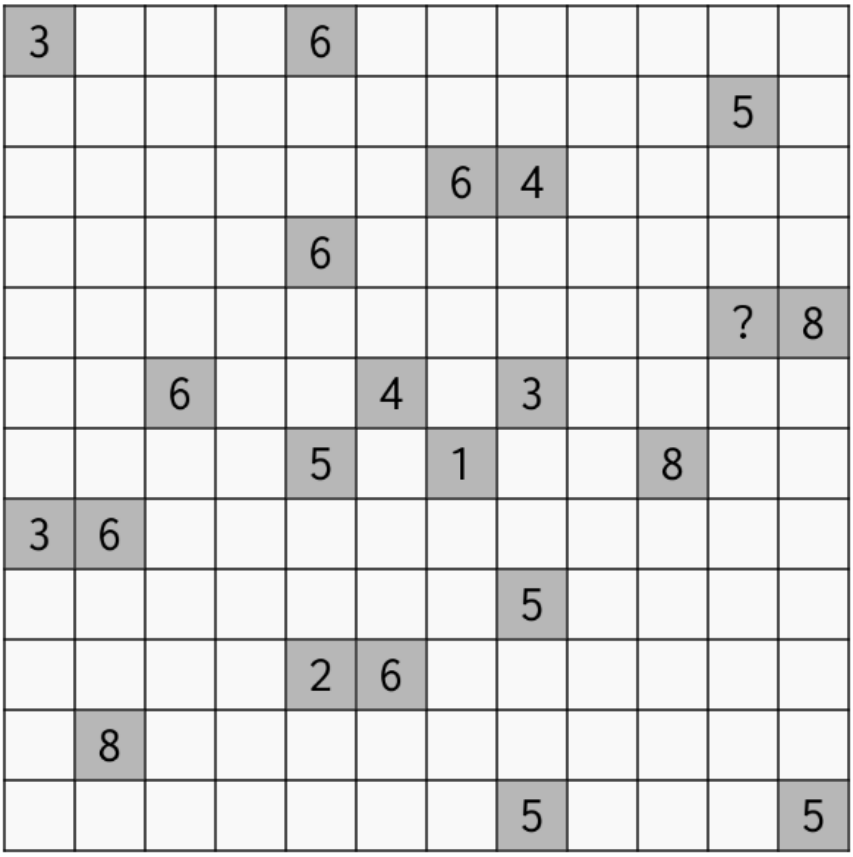

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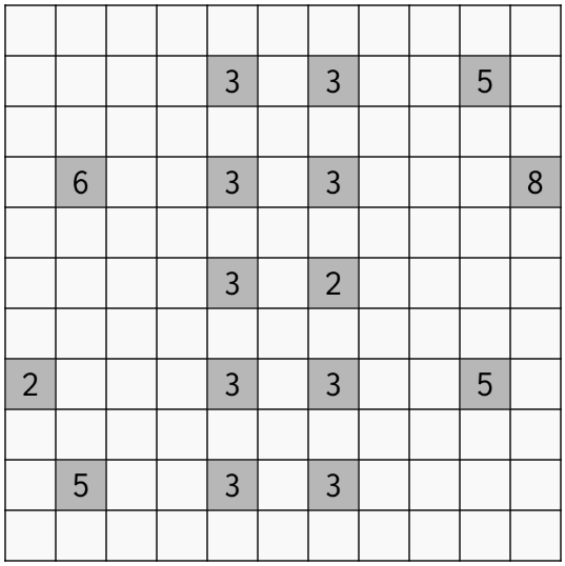

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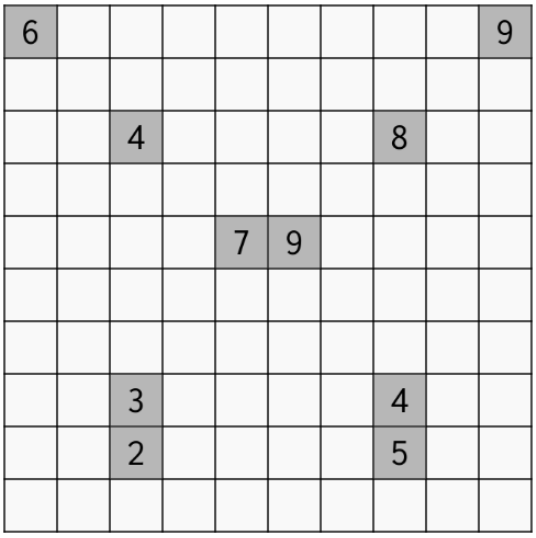
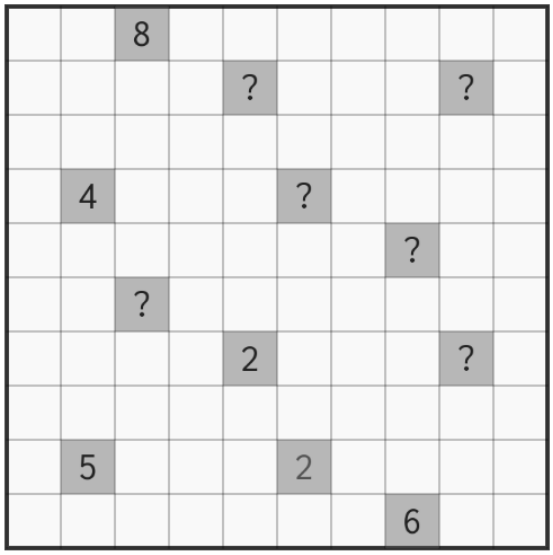
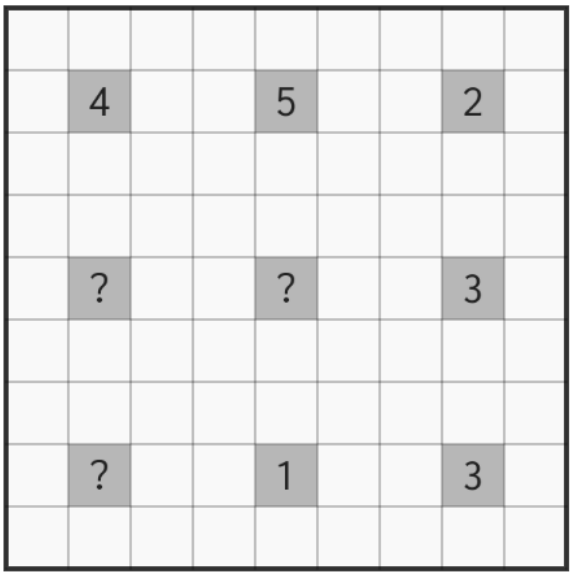


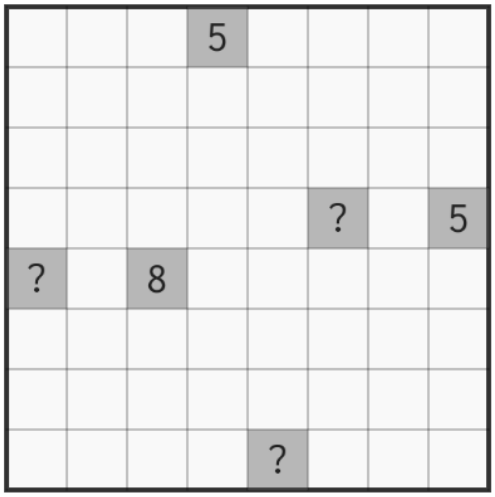
7. WPC puzzle



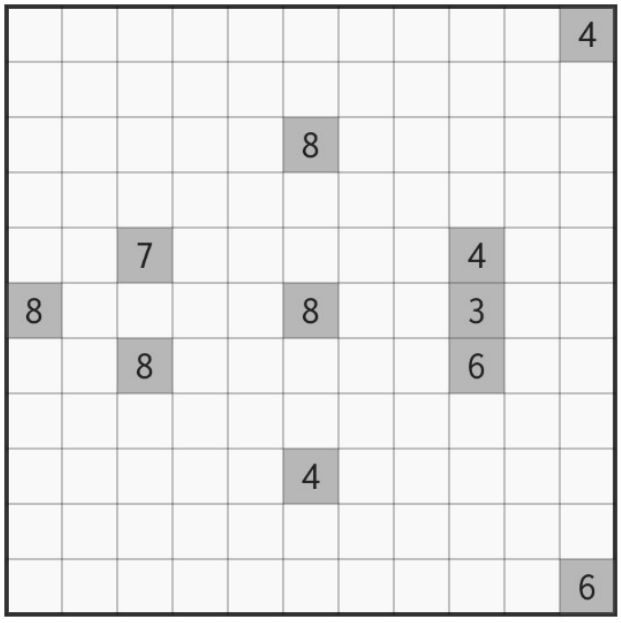
8. WPC puzzle



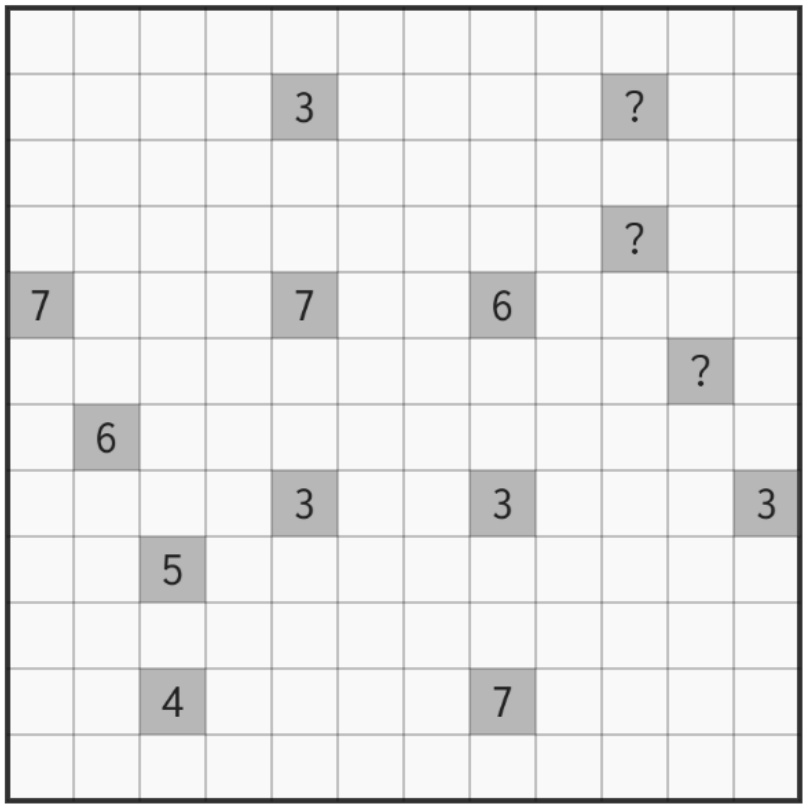
9. WPC puzzle



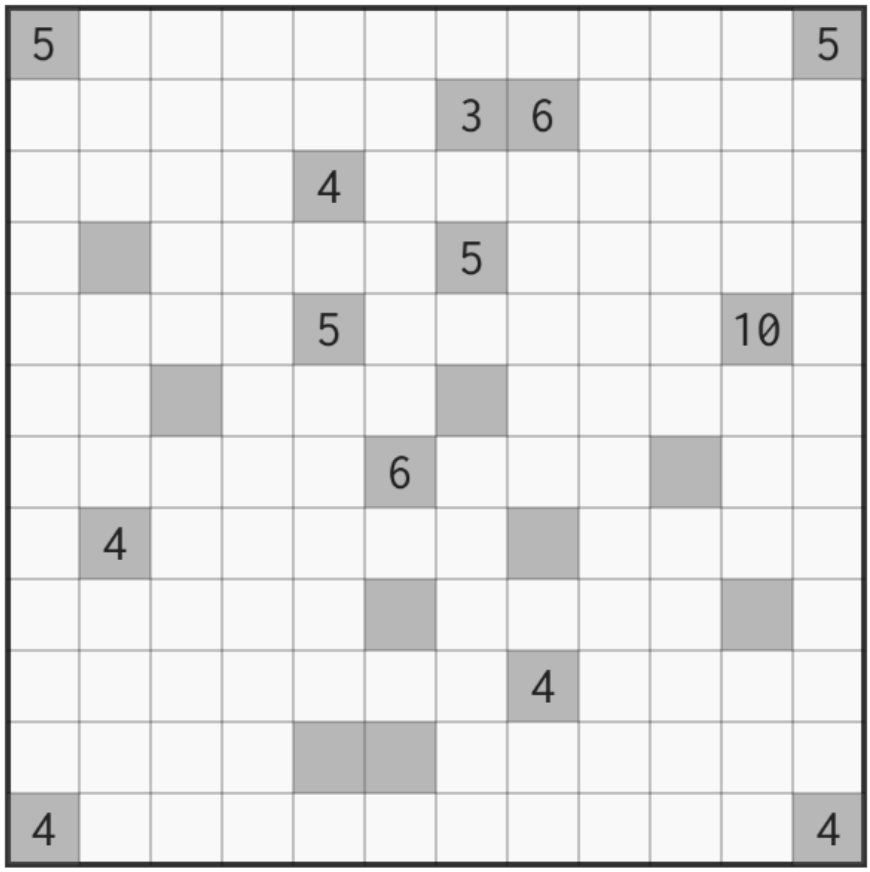
10. WPC puzzle



11. WPC puzzle



12. WPC puzzle



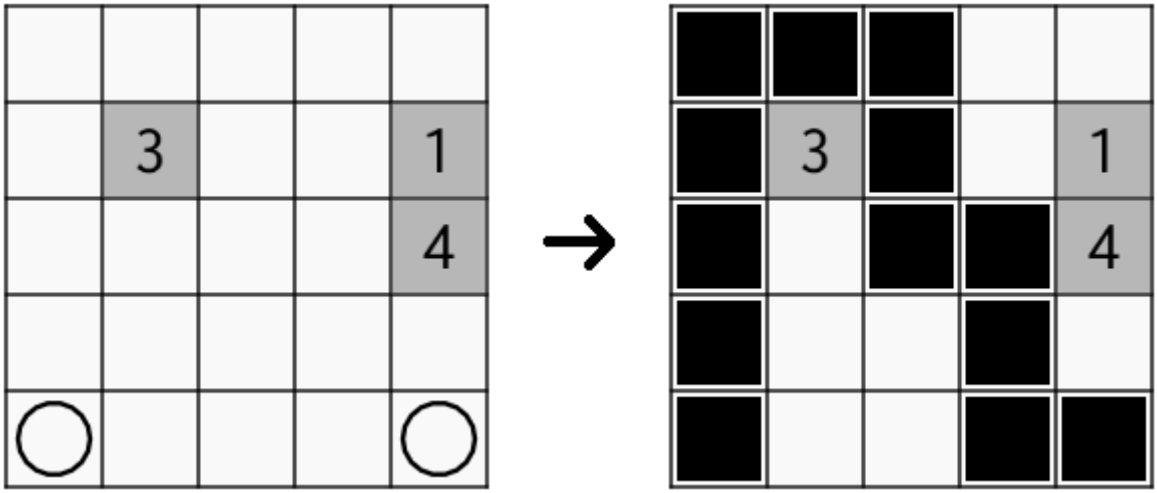
Snakcelltinels

11/2020

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

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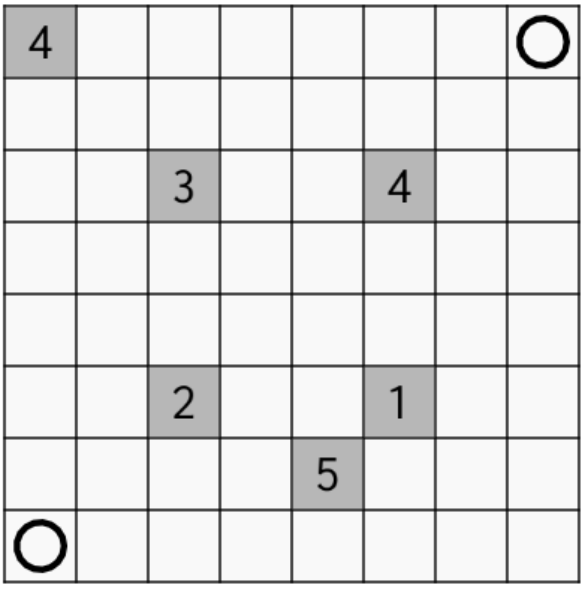

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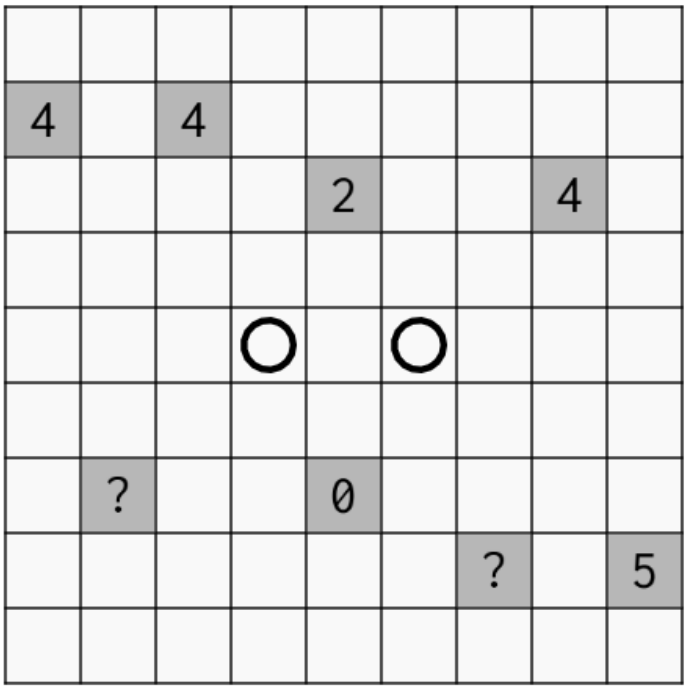

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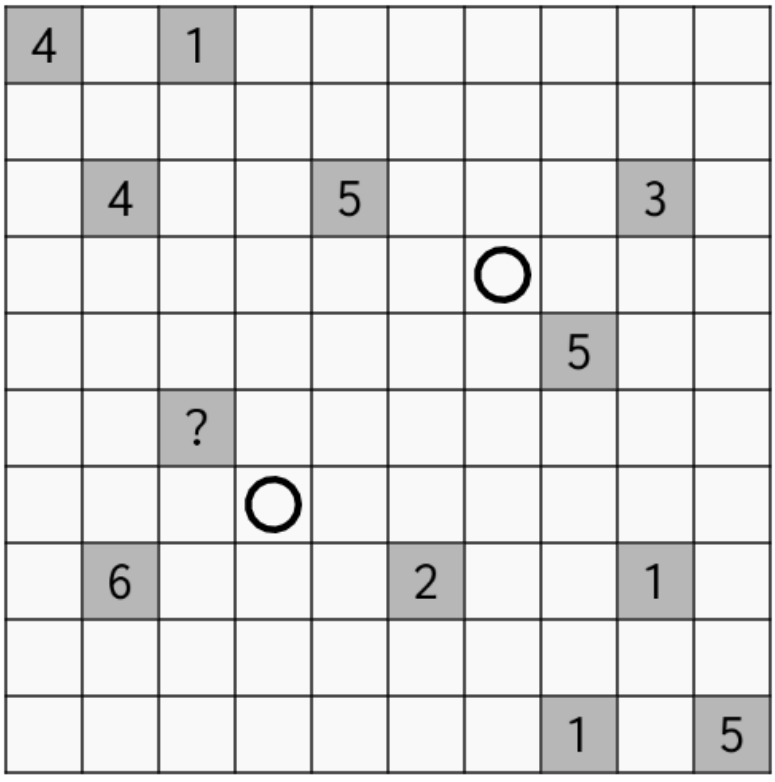


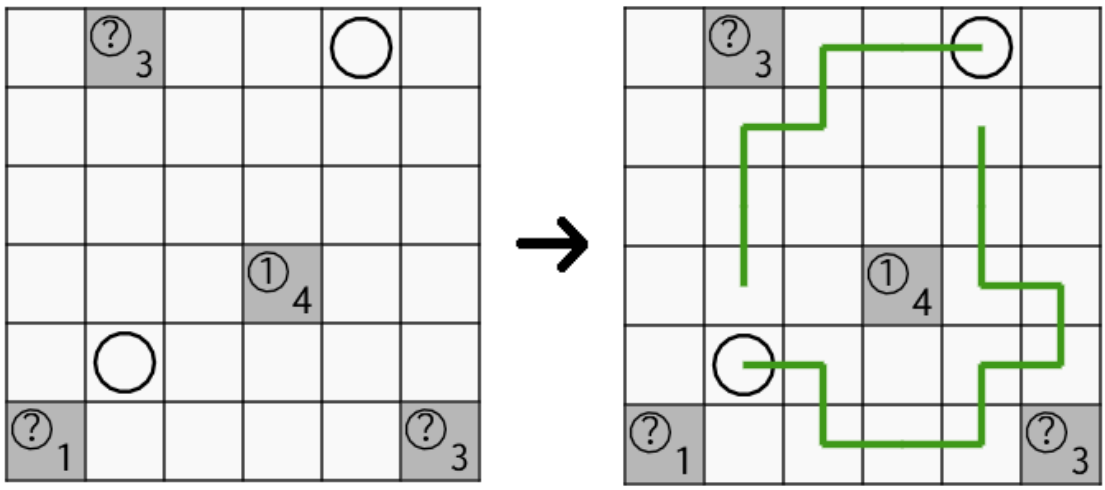
Ouroboros

12/2020

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

Rules:

- 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

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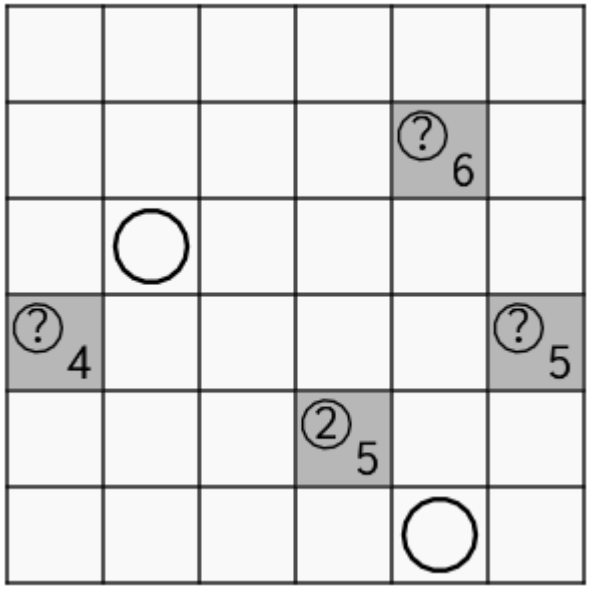

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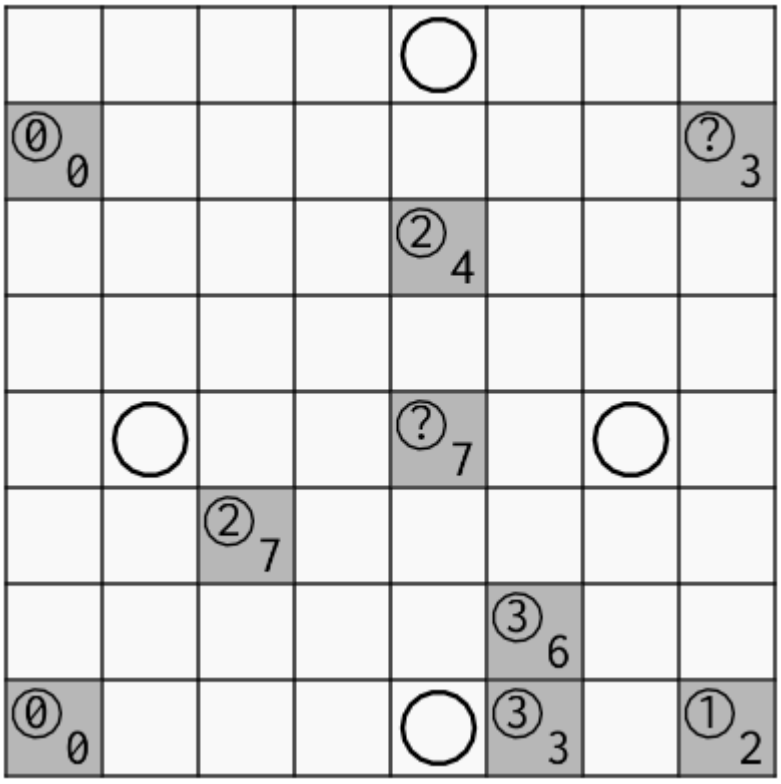

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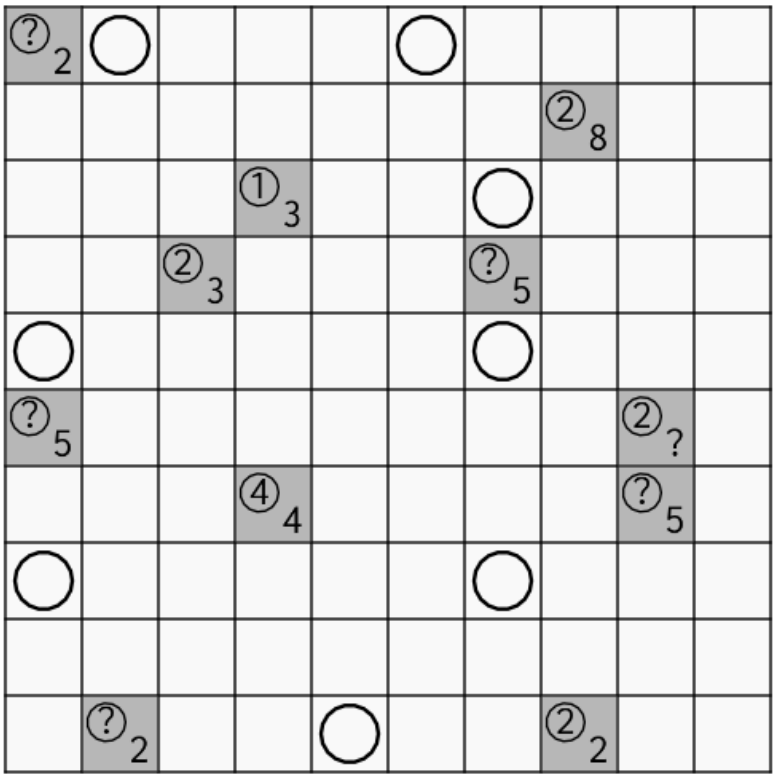

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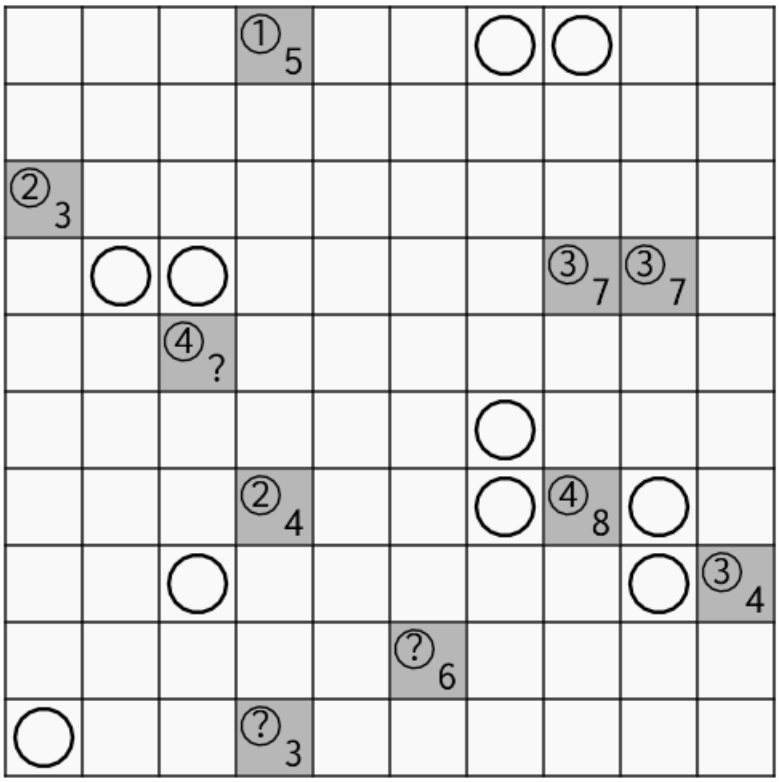

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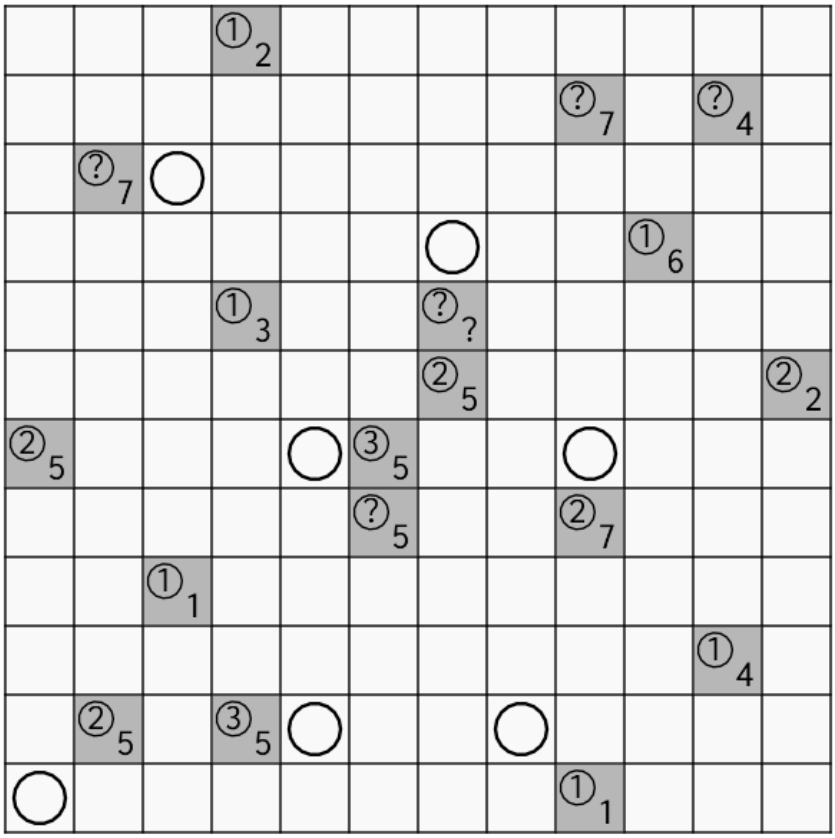
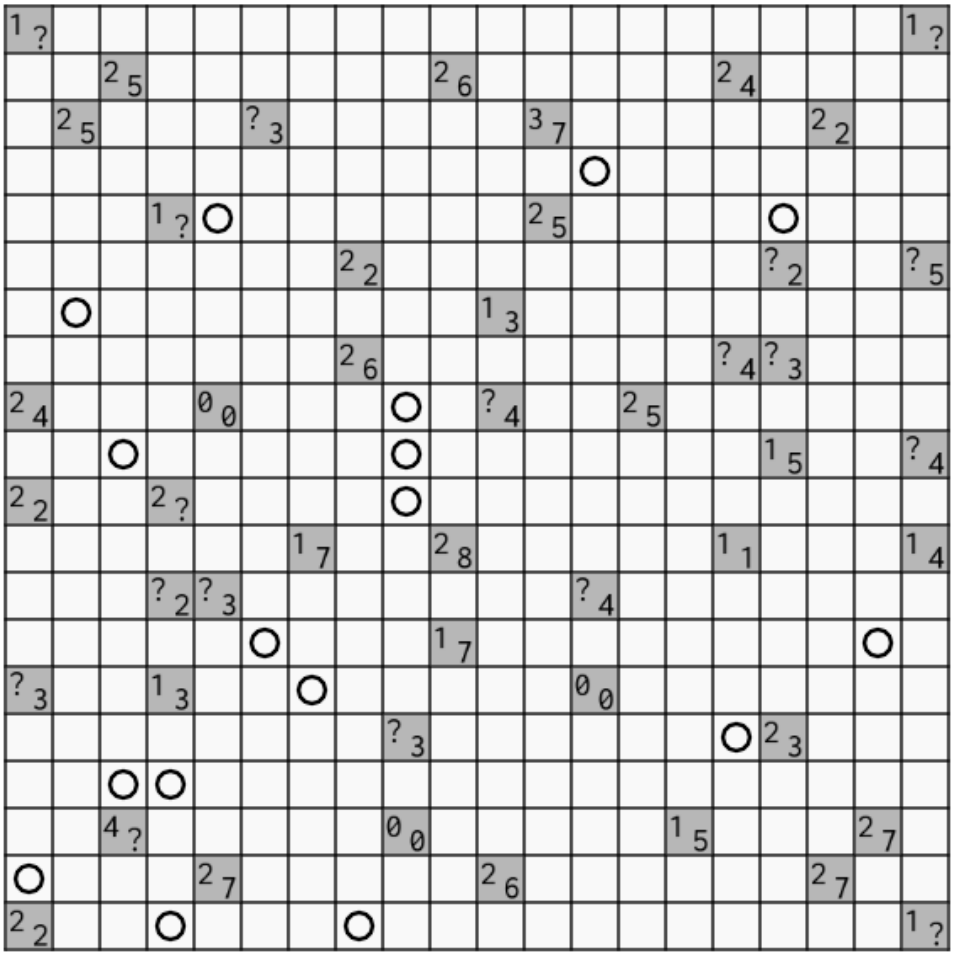


6. This one is called **Turbouroboros**!



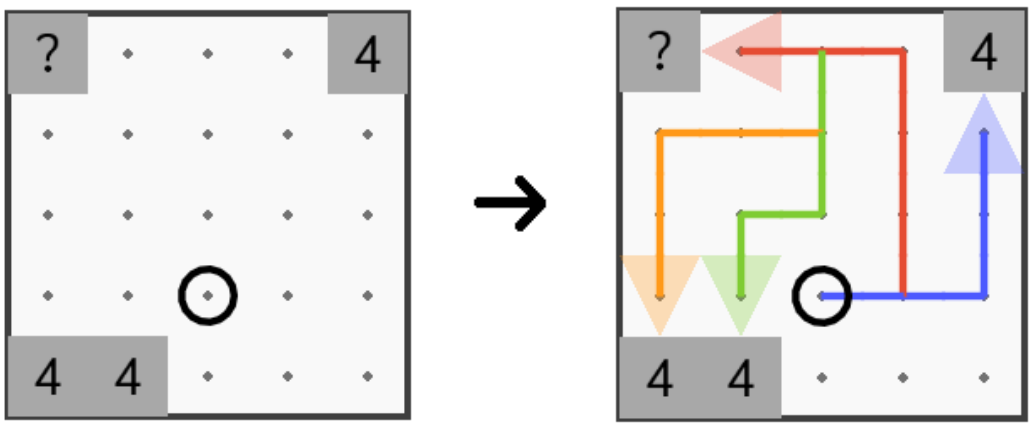
Seaweed

12/2020

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.

Rules:

- 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:

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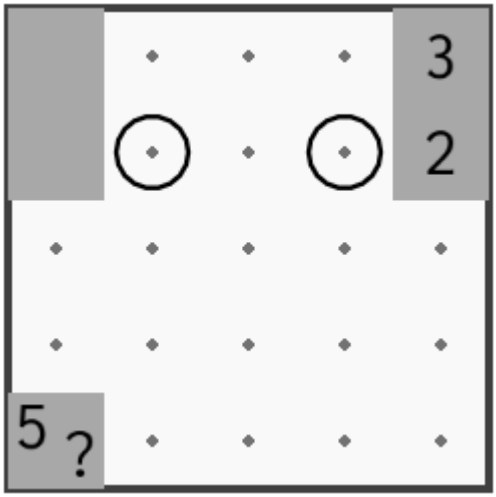

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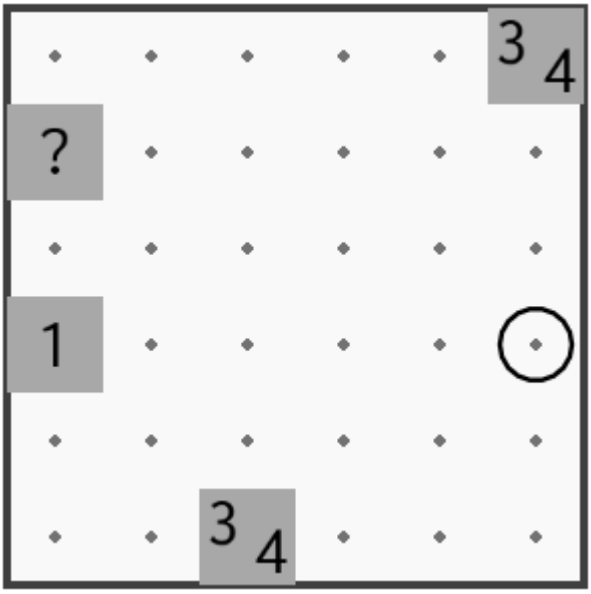

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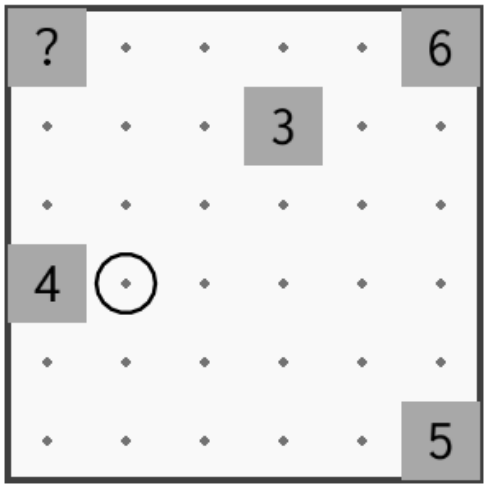

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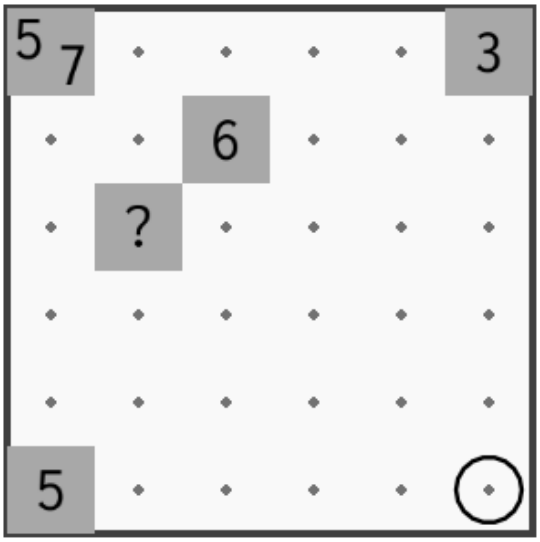

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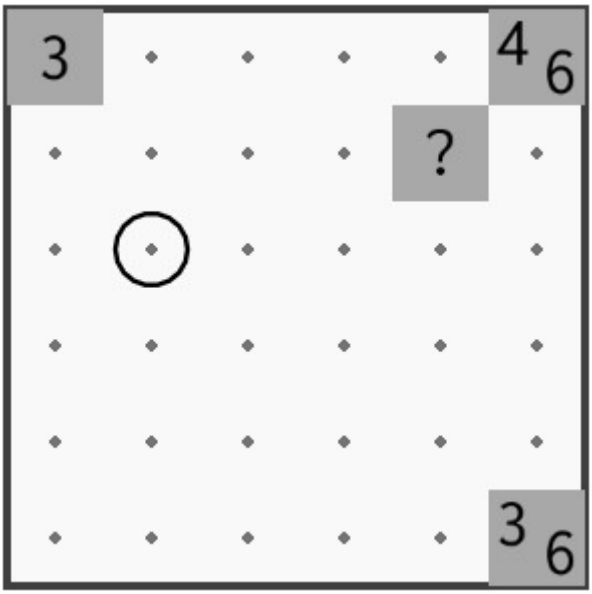

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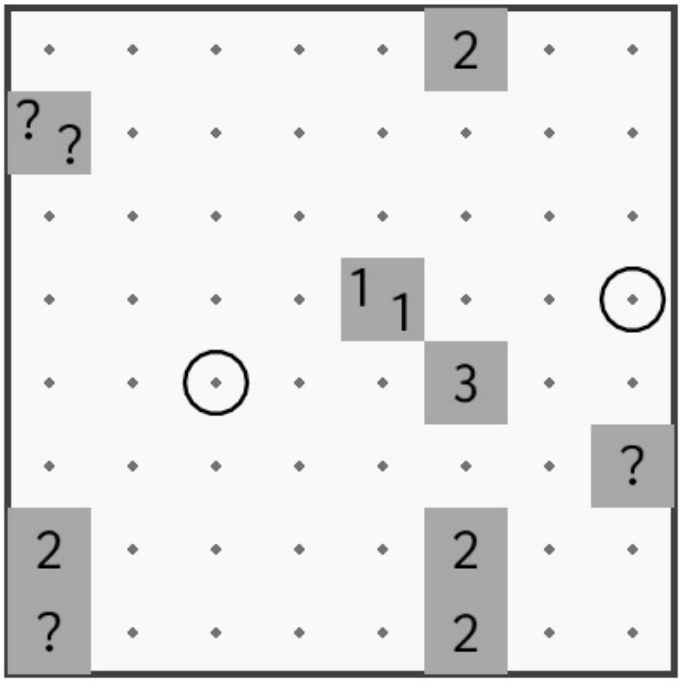

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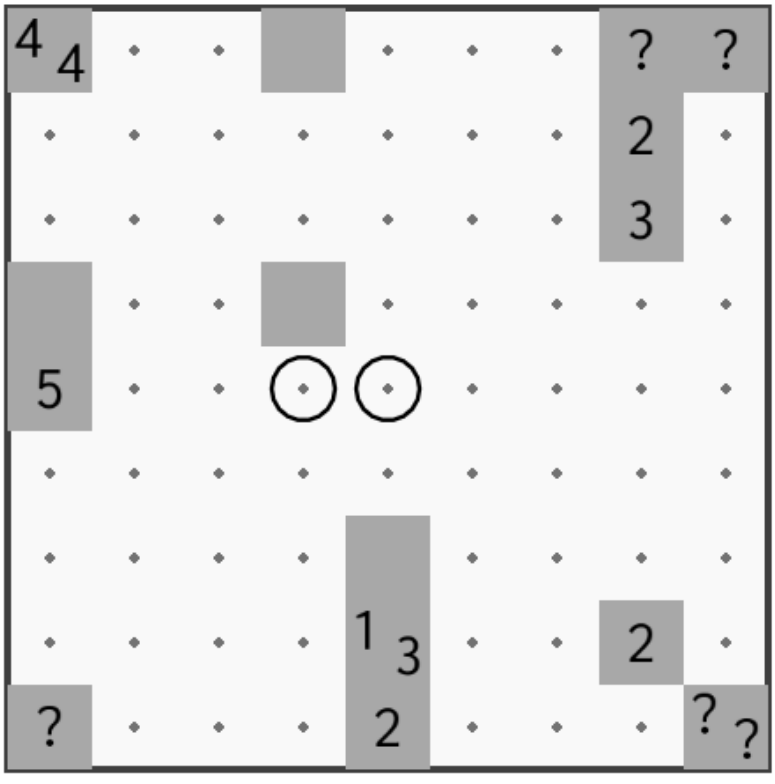


Crossstitch

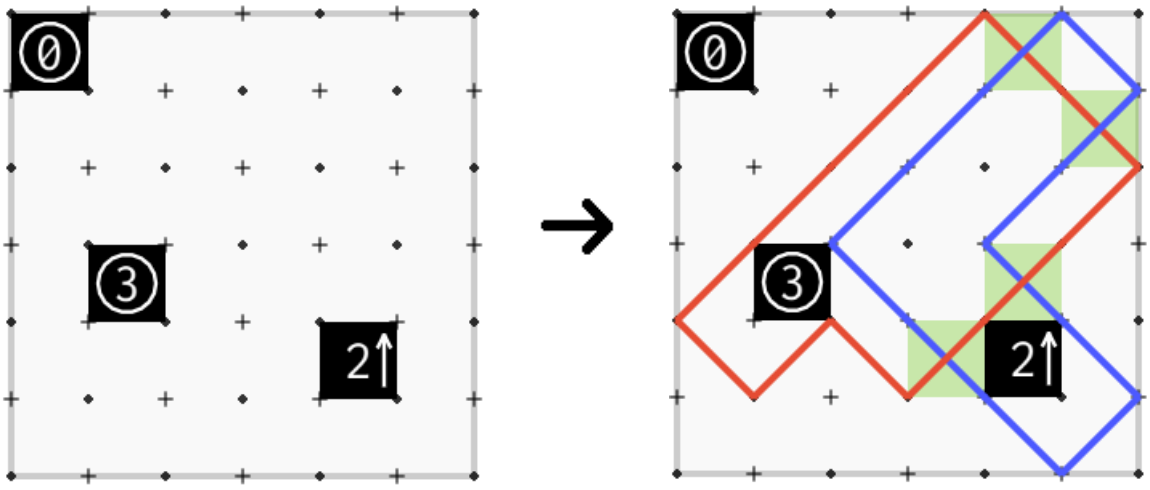
12/2020

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!

Puzz.link: https://puzz.link/db/?type=crossstitch **Puzzle Square:** https://puzsq.logicpuzzle.app/?kind=387

Rules:

- 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

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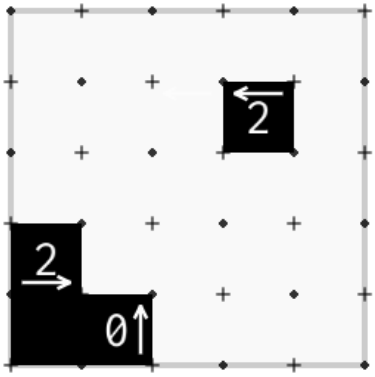

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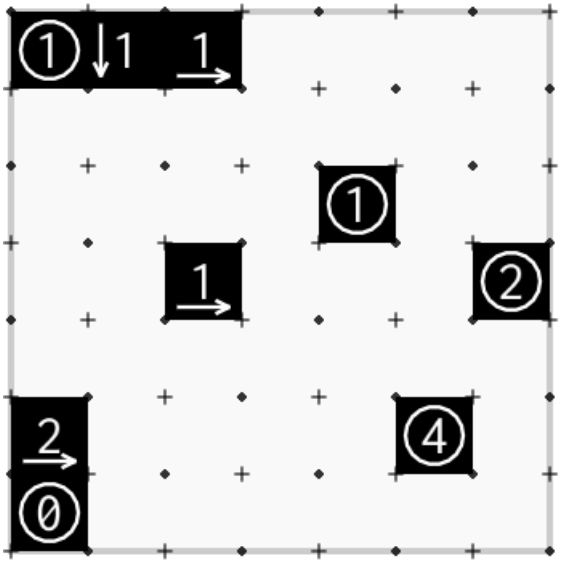

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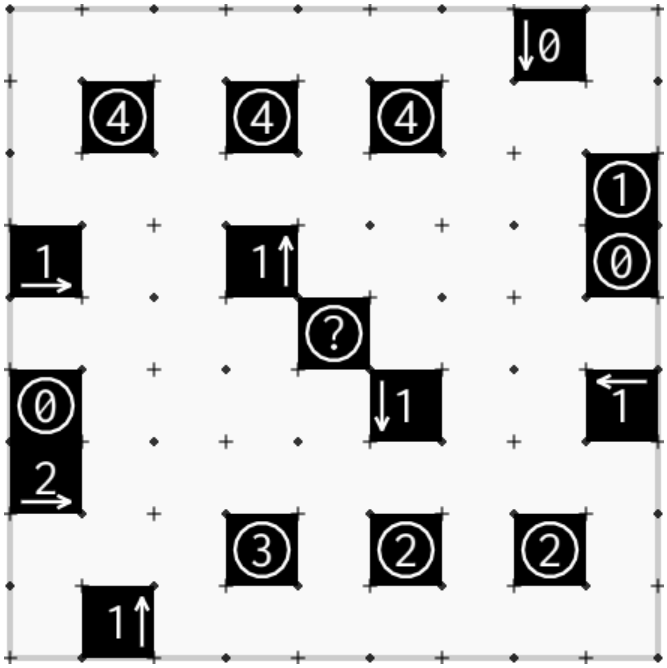

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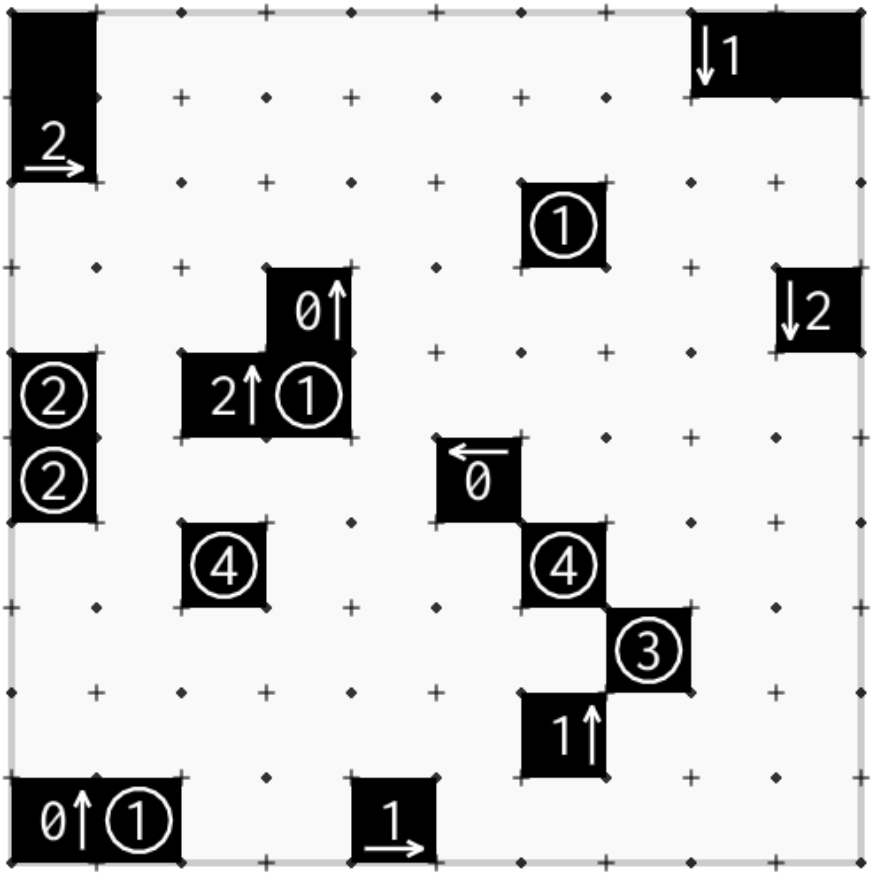

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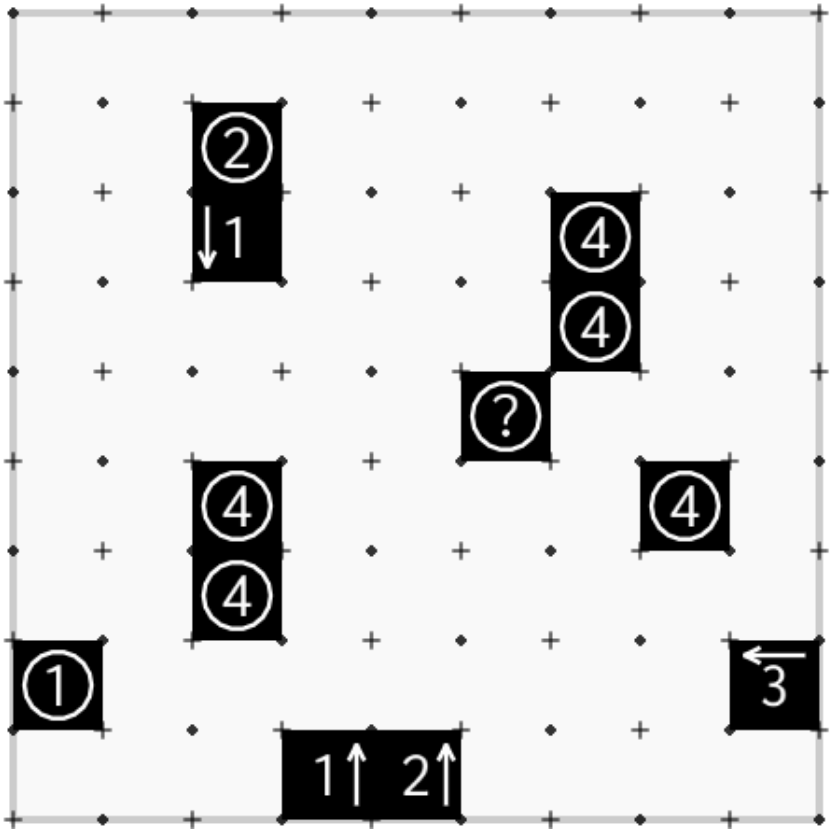

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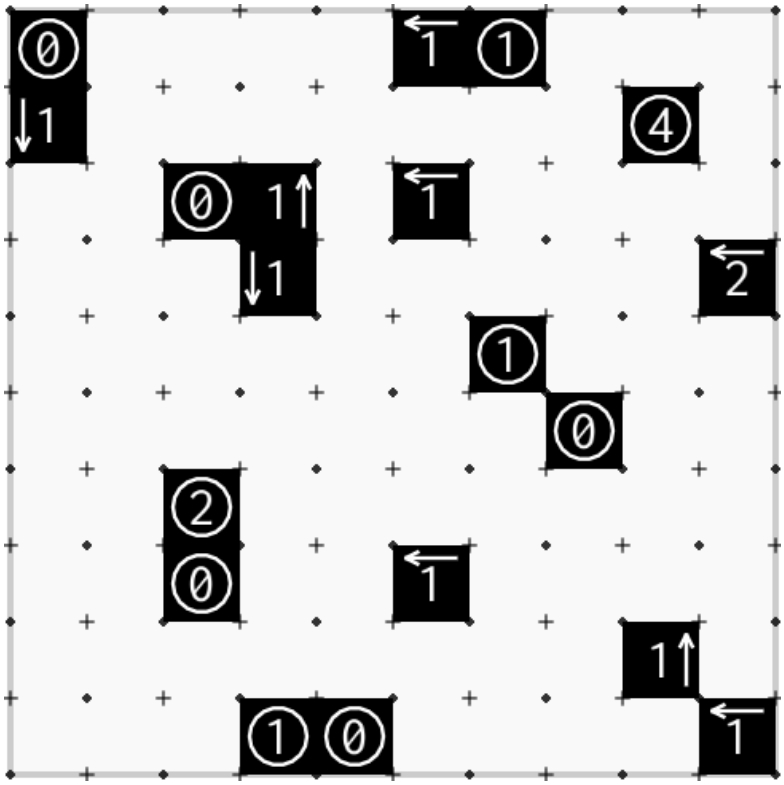

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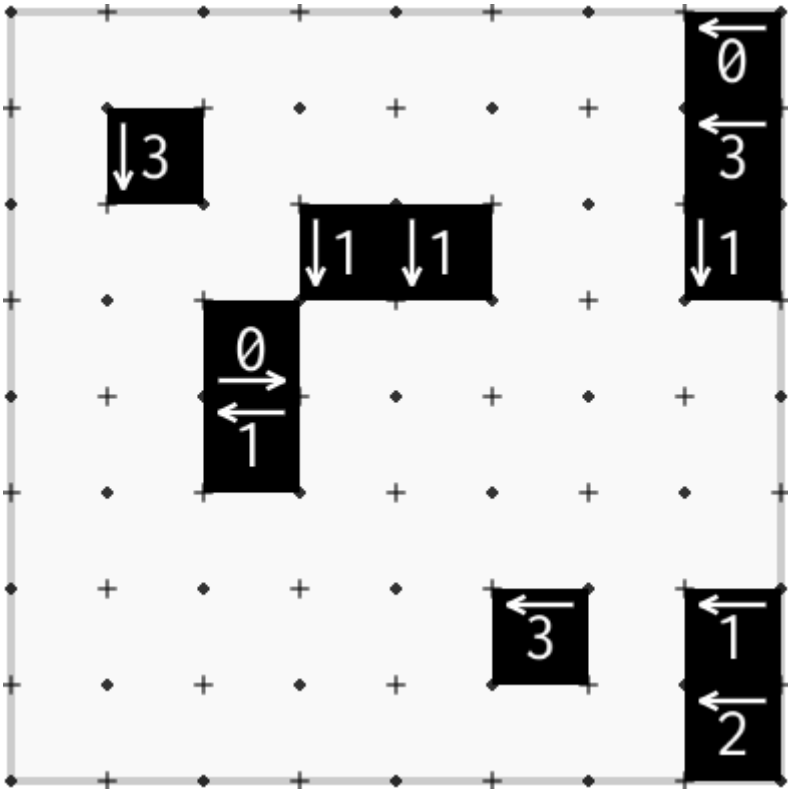


Oddstitch

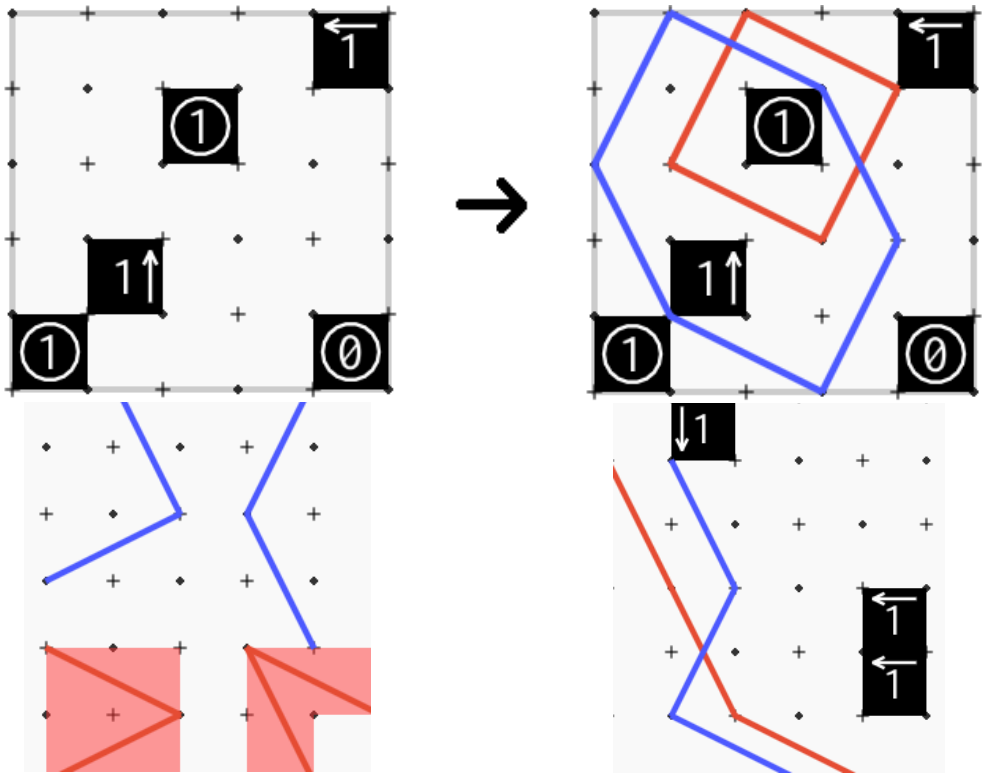
12/2020

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.

Kudamono: https://pedros.works/kudamono/pages/oddstitch.html
Puzzle Square: https://puzsq.logicpuzzle.app/?kind=826

Rules:

- 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

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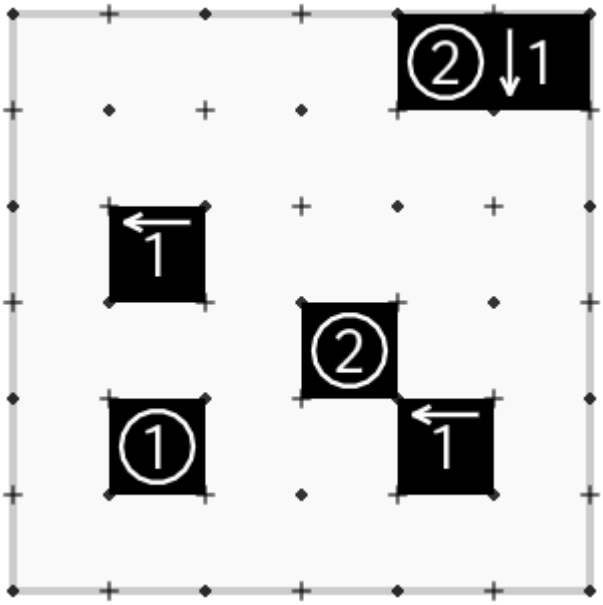

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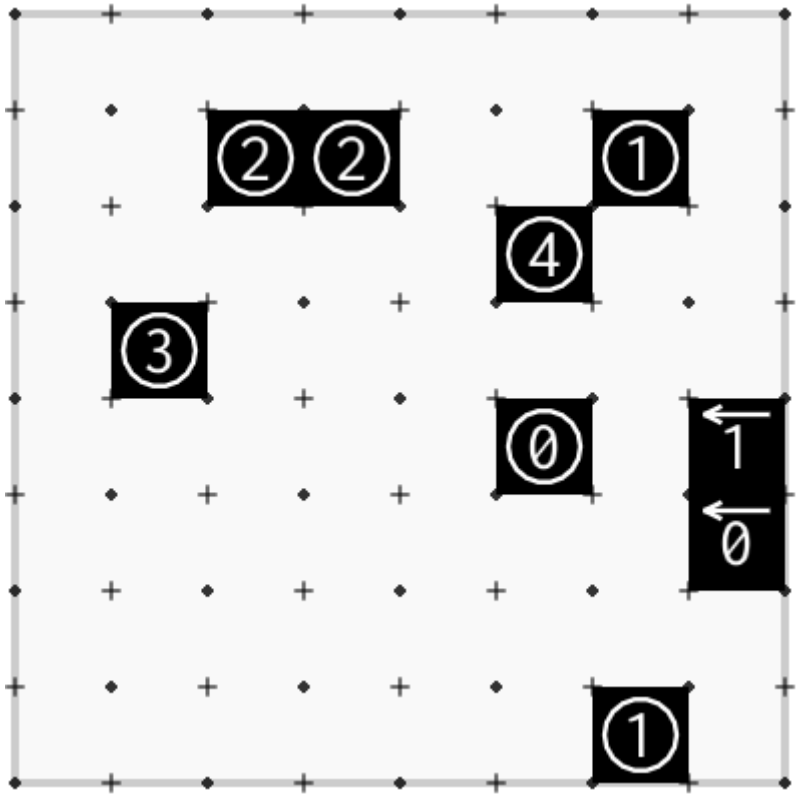

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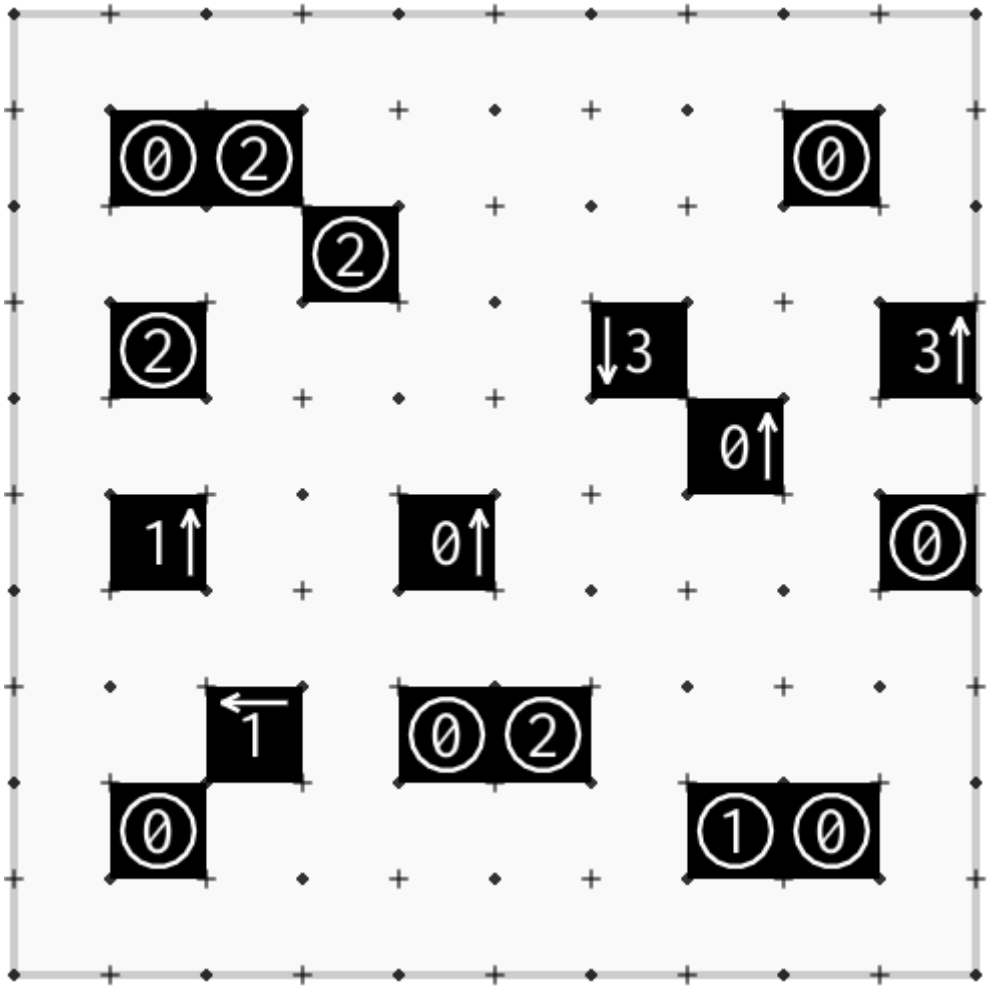


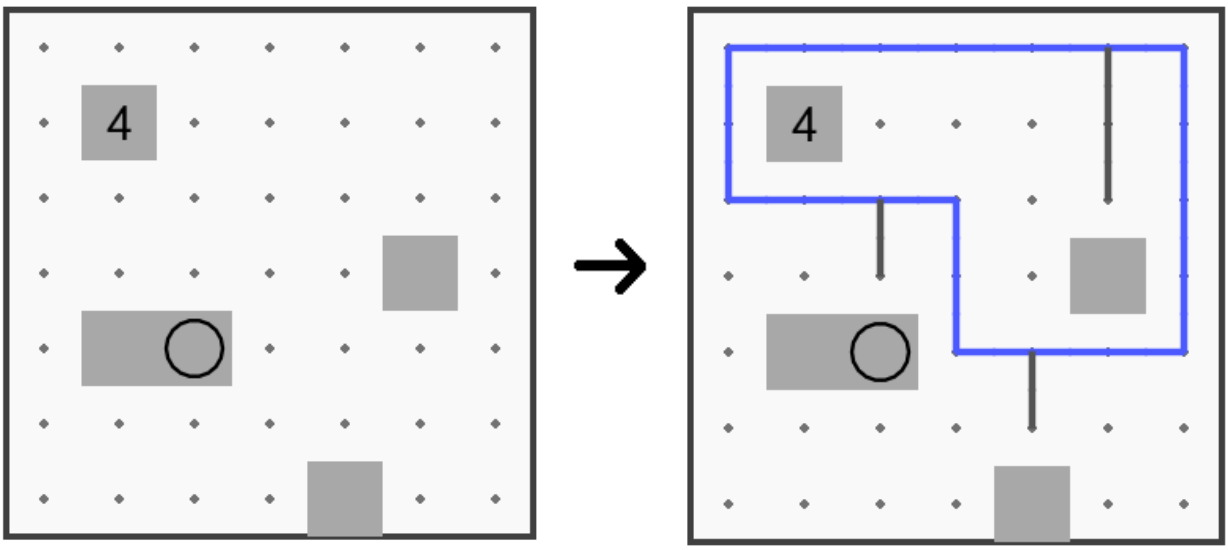
Rollercoaster

12/2020

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. It seems like this type might actually predate Oddstitch by a couple days!

Rules:

- 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 greyed-out cell or the edge of the puzzle. In other words, number clues work like the ones in Sentinels. (”?” can't be zero.)



Rollercoaster puzzles

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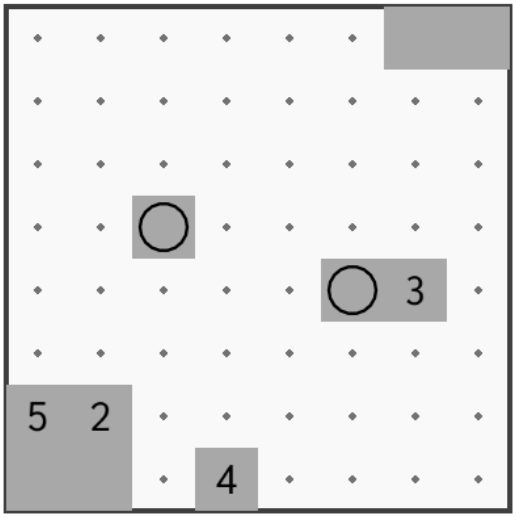

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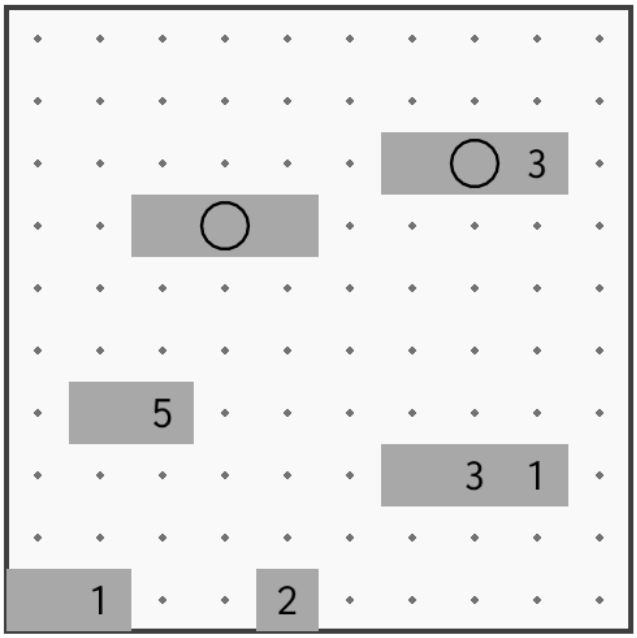

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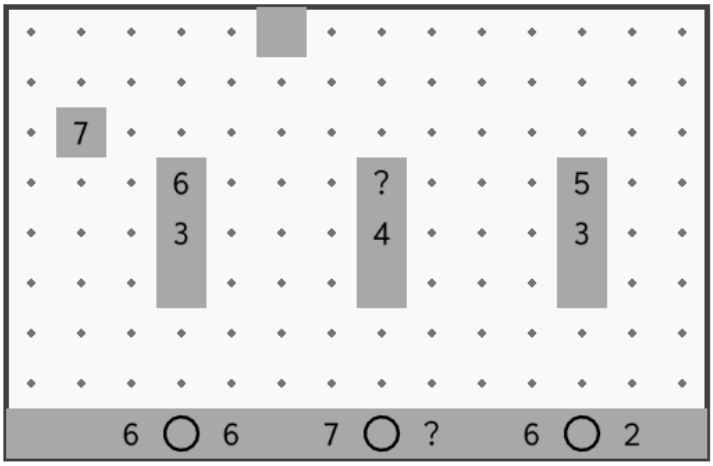


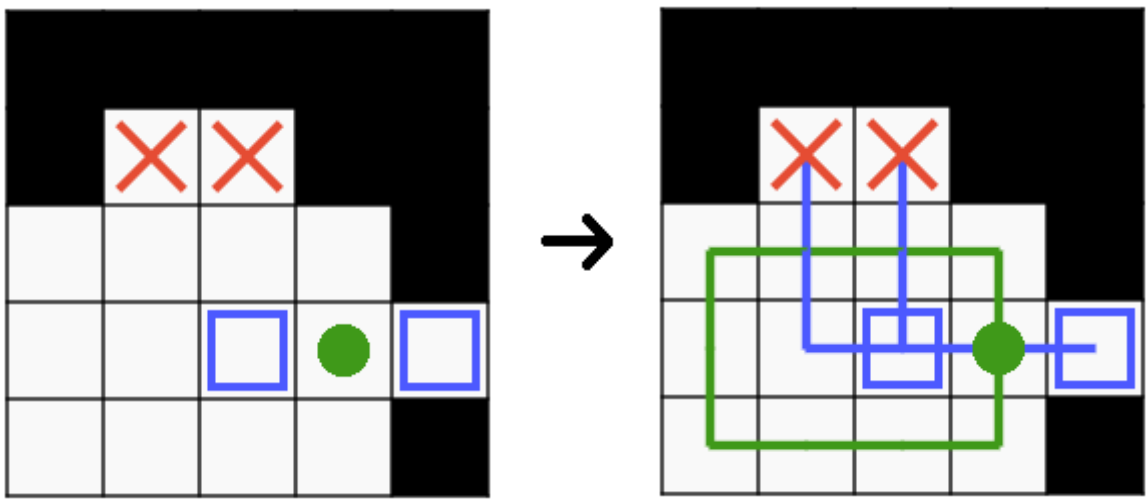
Sokosoko

12/2020

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.

Rules:

- 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

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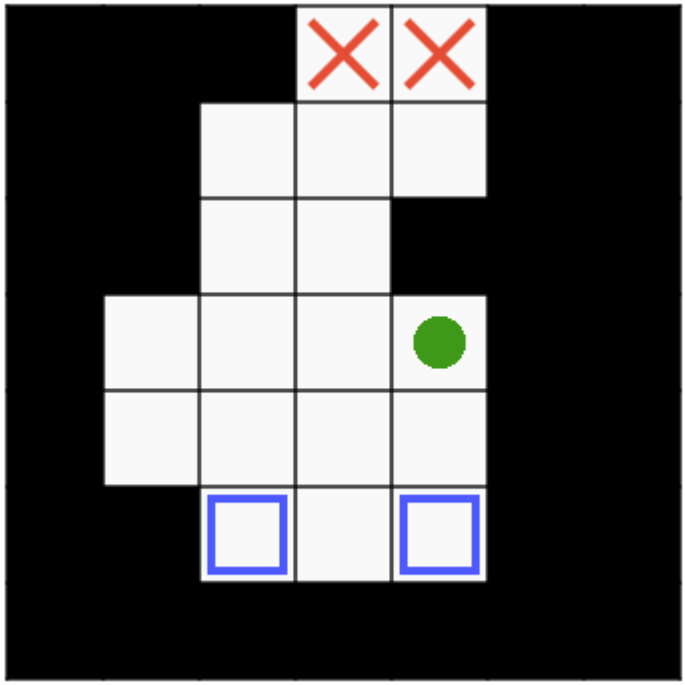

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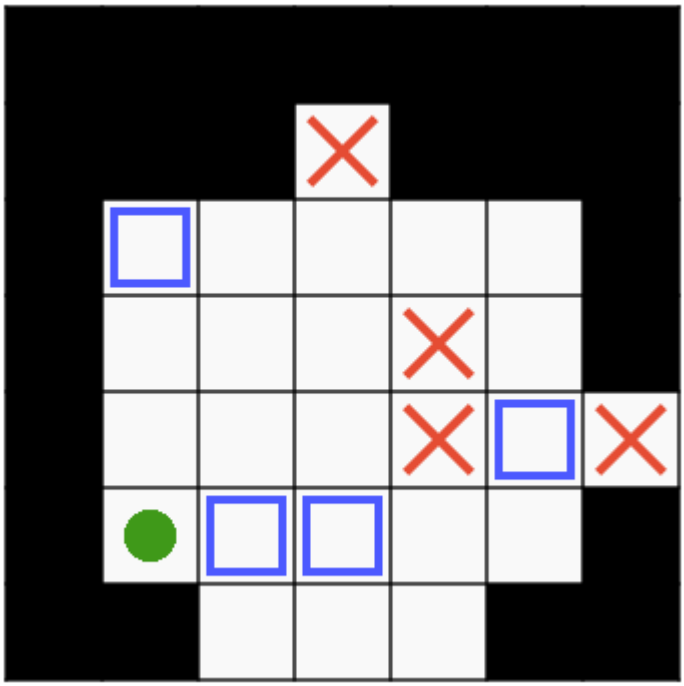

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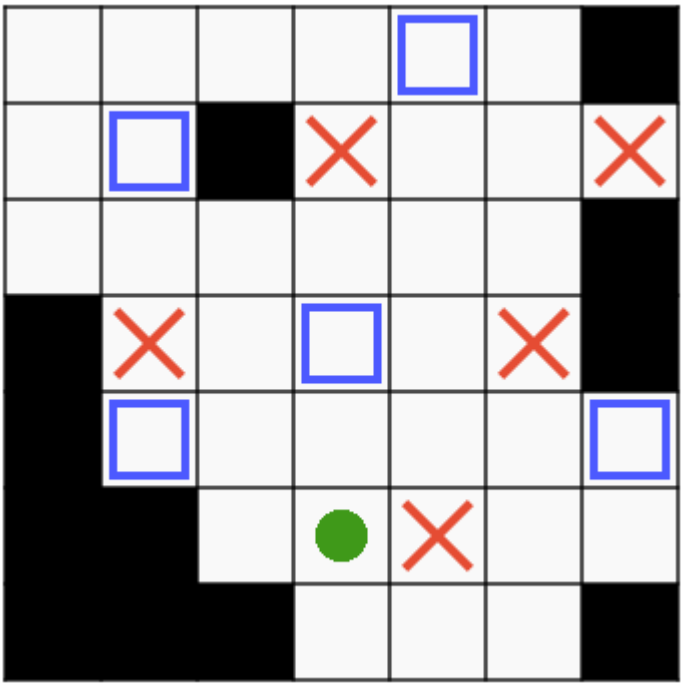

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