

Mind The GAPP Vol. 33

Genuinely Approachable Pencil Puzzles from the CtC Discord
July 1, 2024 - July 31, 2024

July has ended, and as usual, we have the otters from Puzzle GP round 7 and Puzzle Rama-- Wait, there are only 6 Puzzle Ramayan rounds? Guess you learn something new every day.

However, there is something more important happening in July:



To celebrate, we made the largest GAPP yet: a 10-genre wall shading mashup, with a total of 1000 cells! We hope you enjoyed that one as much as we did. We've also compiled some statistics that we found interesting. You may have seen some of them in the intro of GAPP 1000 (check out the 22 July GAPP!), but we've compiled a few more of them in [Appendix 1](#). Do check them out if you're interested!

Also, bakpao released a sequel to GAPP 1K, available on his blog. Here's a link to the post:

<https://puzpao.blogspot.com/2024/07/100-shading-mashup.html>

Finally, we're having another month of "guess-the-genre" in August! Starting on July 31, you can try to guess the genre that will be used on the next day until the end of August. Good luck and see you then!

July 1, 2024: Sackbahnhöfe

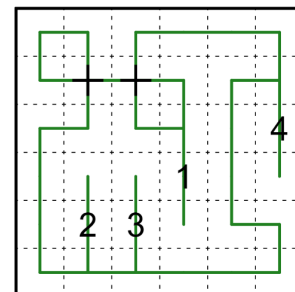
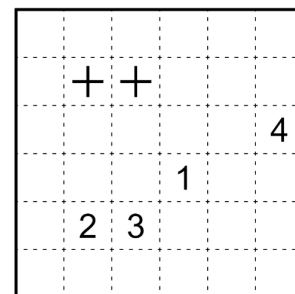
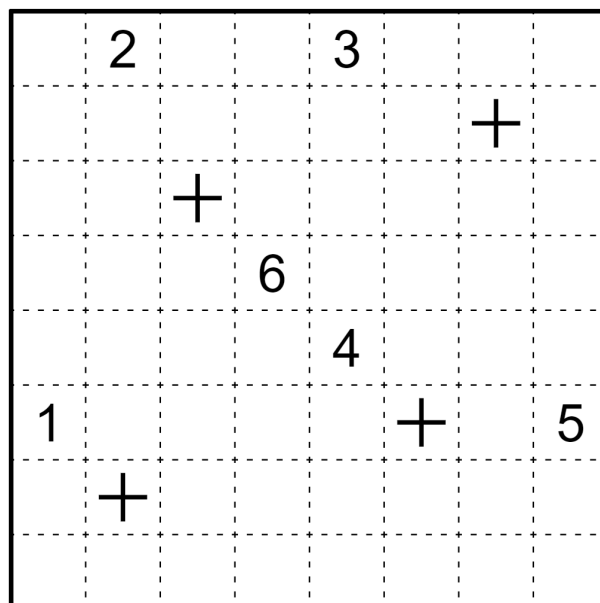
Menderbug

Here is another ruleset I discovered at this year's Logic Masters: **Sackbahnhöfe** (*Terminal Stations*) is a variant of Railroad Tracks/Train Stations that was originally invented for an entire round of such variants at Logic Masters 2024. I thought it's an interesting and unusual (yet neatly thematic) twist on loop genres, and so I wanted to introduce more people to it.

The base genre was featured once on GAPP as was a different variant, *Japanese Railway*, both by Freddie.

Rules:

- For each number, draw a "terminal", i.e. a straight line segment of length 2 with the number at its centre.
- Draw a loop that passes through exactly one endpoint of each terminal, as well as all cells not covered by terminals. (The loop cannot pass through numbers.) The loop crosses itself only at the given intersections.
- Going around the loop, the terminals must be visited in ascending order, cycling from the largest clue back to 1.



Example (Penpa+): <https://tinyurl.com/2dff2tr5>

Puzzle (Penpa+): <https://tinyurl.com/2k4uktrm>

July 2, 2024: Subomino

Freddie Hand

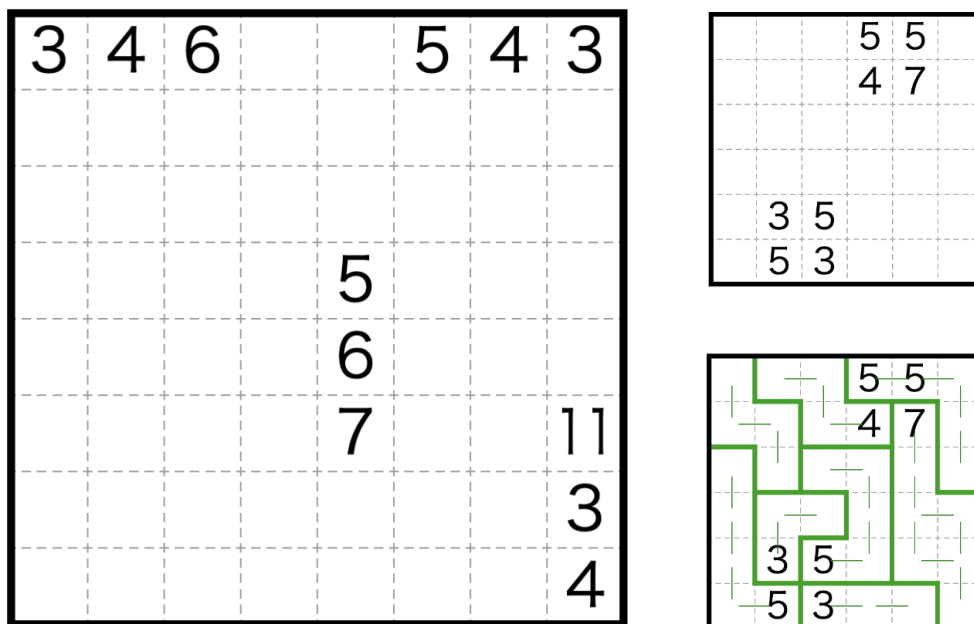
Subomino is basically the naughty cousin of Fillomino. You don't want to see them at every family gathering, but they're fun to have around from time to time.

I assume that's how most people would view it, anyway. I think of it as butter or a rice cooker - almost everything can be improved by a Subomino puzzle. It's an incredible genre.

Rules: Divide the grid into regions of orthogonally connected cells. Number clues indicate the size of the region they are contained in. A region can contain one or more numbers, or none at all. When two regions share a border, it must not be possible to fit one region entirely into the other region (*without changing the region's orientation or size*).

Shaded cells are not part of any region (there are none in these puzzles).

Note: Regions of the same size may be adjacent, unlike in Fillomino.



Example (puzz.link): <https://tinyurl.com/33uevc99>

Puzzle (puzz.link): <https://tinyurl.com/2n5b4hpa>

July 3, 2024: Nagareru-Loop

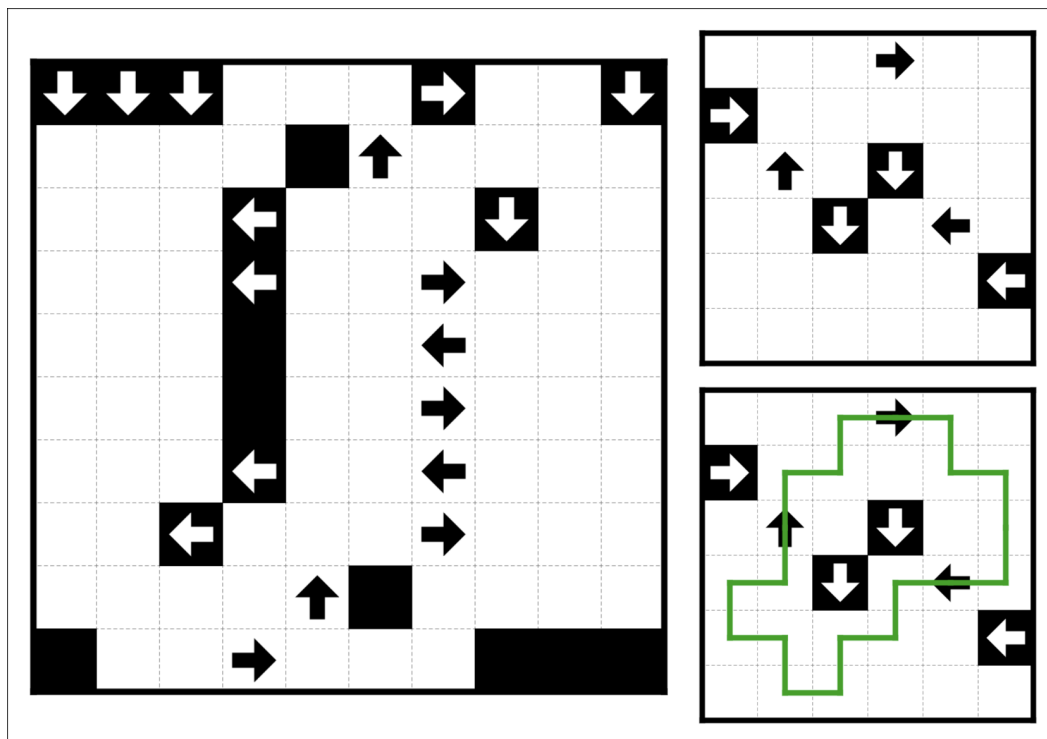
Walker

Today's GAPP is a **Nagareru-Loop**, one of the still-remaining puzzlink genres not covered on GAPP! I like to think of the arrows clues as gusts of wind that push you around as you're trying to walk around a loop. Watch out for the wind tunnel on the left!

Also, have you ever noticed the unique background tilings on puzzlink interfaces? The Nagareru-Loop one is one of my favorites - it's simple, but represents the genre nicely, I think!

Rules: Draw a non-intersecting loop through the centers of some cells and define its direction of travel. The loop may not travel through black cells. Whenever the loop moves into the line of sight of an arrow on a black cell, it must move at least one cell in the direction the arrow points. Arrows on black cells see in a straight line, and cannot see through other black cells. The loop must travel straight through arrows in white cells in the direction of the arrow.

Note: The loop is allowed to not visit any cells in the direction of a white arrow.



Example (puzz.link): <https://tinyurl.com/me7secrm>

Puzzle (puzz.link): <https://tinyurl.com/3ys7ecfv>

July 4, 2024: You are the Star / ホシはお前だ

Lavaloid

Today's GAPP is ホシはお前だ (read: Hoshi wa Omae da), or **You are the Star!** When I first encountered this genre, I was confused about the choice to use circles to represent the stars. Then I remembered that stars are, in fact, spheres.

This genre was first published in Puzzle Communication Nikoli vol. 150. It feels like a Yaji--
LOUD SIREN NOISE

 **NEGATIVE CONSTRAINT ALERT**  **NEGATIVE CONSTRAINT ALERT** 

Rules:

- Place stars (black circles) in some cells such that each region separated by bolded lines have exactly one star. Some stars may already be given.
- Arrows indicate **ALL** direction(s) in which stars are the closest to the arrow cell (top, bottom, left, and right). If there are multiple, then the distances in those directions are the same.
- However, arrow clues can be covered by stars, in which case the clue may or may not be true. In other words, covered clues are ignored.

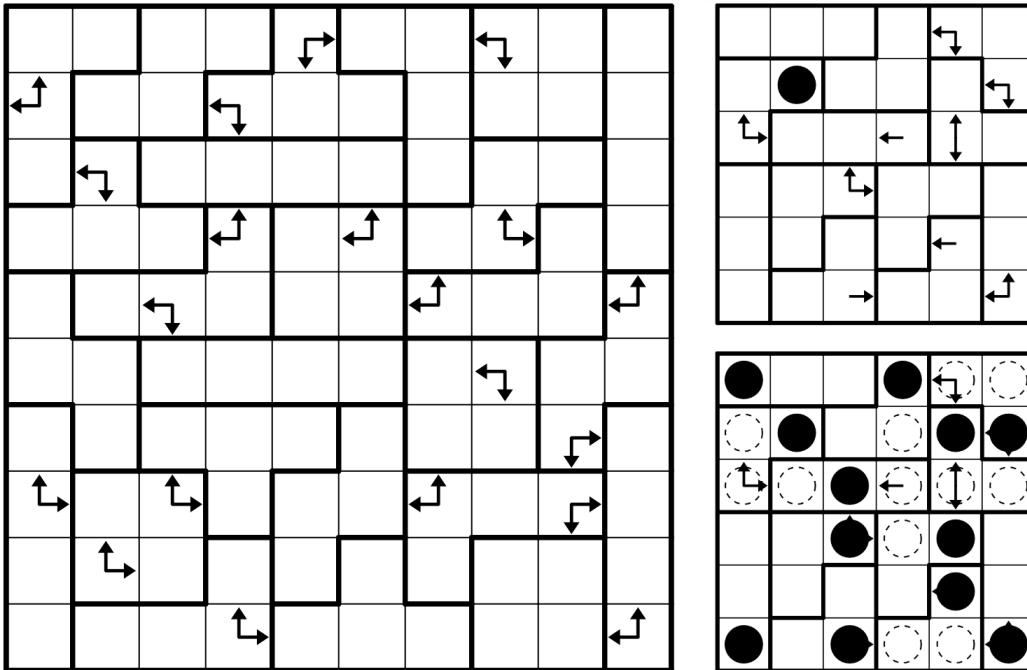
Interface note: For the answer check, you may use *Shading* or *Shape > Circle > M* (black circle) to mark the stars. If you decide to use the Shape mode, you may use the dotted circle (4th option) for marking cells that don't have stars. Don't use the white circle, as it will interfere with the answer check!

↓ Puzzle on the next page ↓

↑ Intro on the previous page ↑

Rules:

- Place stars (black circles) in some cells such that each region separated by bolded lines have exactly one star. Some stars may already be given.
- Arrows indicate **ALL** direction(s) in which stars are the closest to the arrow cell (top, bottom, left, and right). If there are multiple, then the distances in those directions are the same.
- However, arrow clues can be covered by stars, in which case the clue may or may not be true. In other words, covered clues are ignored.



Example (Penpa+): <https://tinyurl.com/2gfbbfyj>

Puzzle (Penpa+): <https://tinyurl.com/2q95zphk>

July 5, 2024: Nutteria

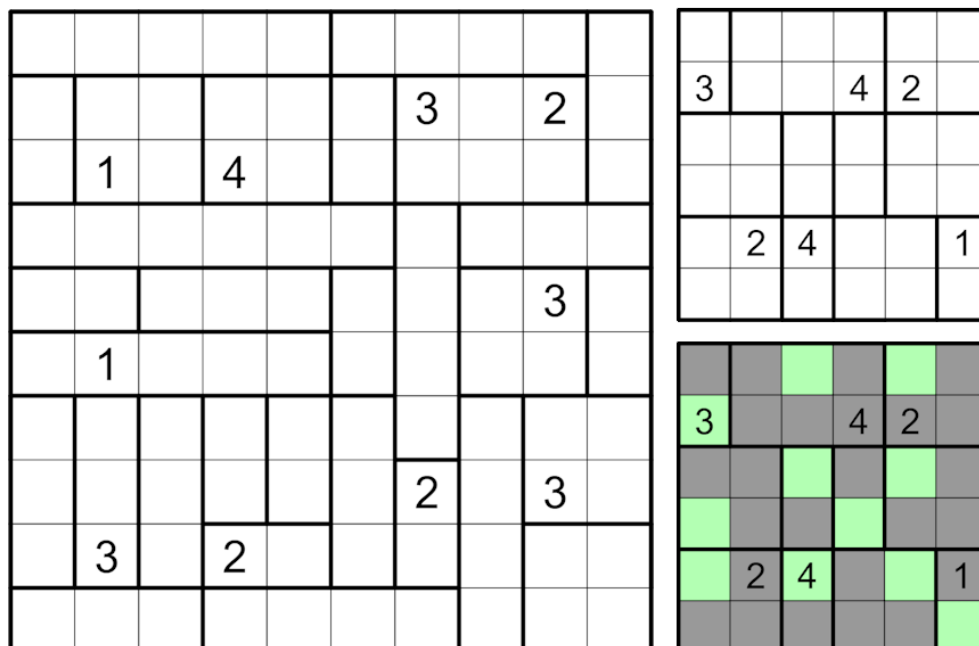
bakpao

It's been ages since our last Putteria. ... What's that? We just had one? Okay, well, in that case, let me just change make a tiny little change - surely nobody will notice, right?!

Today's puzzle is a **Nutteria**! This is a bit of a silly and very old Nikoli genre. It is included in the [Omoro Complete Puzzle Collection](#) book, published in 2004, which contains all Nikoli-(reader-)created puzzle types from 1998 to 2004.

Rules: Shade some cells such that all shaded cells form one orthogonally connected area and each region contains exactly one unshaded cell. No 2x2 area may be entirely shaded. A clue represents how many of the (up to) four orthogonally adjacent cells are shaded.

GAPP 101 🤖: (ROT13) Gur bayl bar hafunqrq pryy cre ertvba ehyl pna or irel cbjreshy va pbzovangvba jvgu gur ab-gjb-ol-gjb funqrq ehyl. Vs lbh svaq lbhefrys fghpx gbjneqf gur ynggre unys bs gur fbyir, gel ybbxvat sbe pryyf jvguva n ertvba gung jbhylq sbez n gjb-ol-gjb vs nyy bs gurz jrer funqrq. Lbh pna gura hfr gung gb yvzvg qbja gur hafunqrq pryy gb gubfr pryyf, naq va ghea funqr nyy gur ernvavat pryyf va gur ertvba!



Example (Penpa+): <https://tinyurl.com/2deozvly>

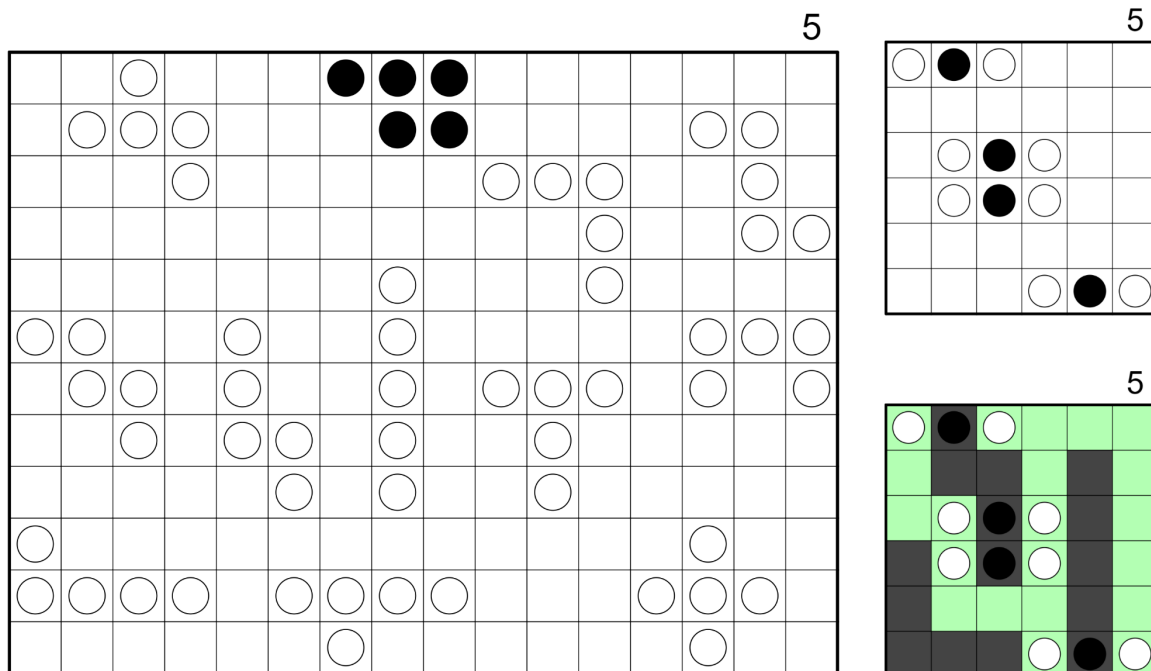
Puzzle (Penpa+): <https://tinyurl.com/25lqo48x>

July 6, 2024: Isowatari

Menderbug

Story time! I have a bit of a love-hate relationship with constructing **Isowatari**. In principle, the genre is a *lot* of fun to construct, but it ends up being so much fun that I always commit to overly restrictive themes (or doppels for way too many different parameters), such as 🐼 that resolving the end of the puzzle becomes a huge pain and takes forever. Case in point, I had 10(!) working versions of today's puzzle before this one, because in all of them the ending required some steps that were unsuitable for GAPP. Though all of those ten versions only used the 11 pentominoes that can appear as white givens. The breakthrough happened when it finally occurred to me to include the black sheep of the pentomino family.

Rules: Shade some cells so that all unshaded cells form one orthogonally connected area and no 2x2 region is entirely unshaded. Black circles must be shaded and white circles must be unshaded. All orthogonally connected groups of shaded cells must be the size indicated above the grid.



Example (Kudamono): <https://tinyurl.com/39d242j6>

Example (Penpa+): <https://tinyurl.com/268zdkrs>

Puzzle (Kudamono, Landscape): <https://tinyurl.com/ymm3wsb9>

Puzzle (Penpa+, Landscape): <https://tinyurl.com/26cnz3fb>

Puzzle (Kudamono, Portrait): <https://tinyurl.com/53w9zrpx>

Puzzle (Penpa+, Portrait): <https://tinyurl.com/22tzmylr>

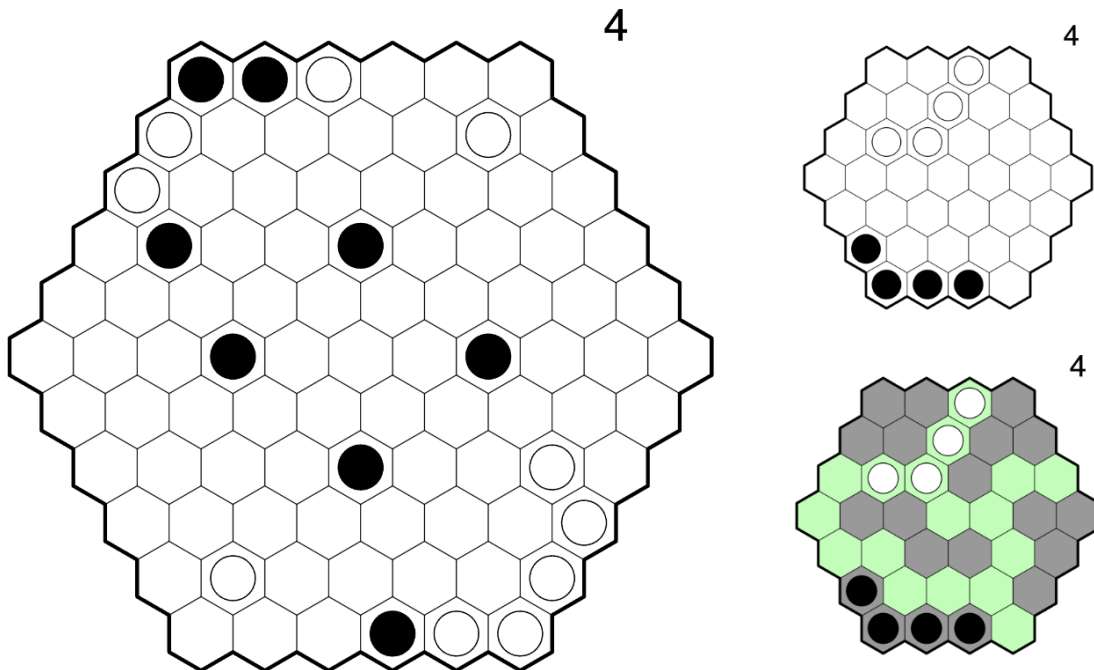
July 7, 2024: Isowatari (Hexagonal)

Freddie Hand

We've had **Isowatari** with group sizes of 2,3 and 5 - counting is not a puzzler's strength. So I thought I'd close the gapp with a size 4 puzzle.

Oh yeah, I almost forgot the day of the week. It's actually **Isowatari (Hexagonal)**!

Rules: Shade some cells such that all shaded groups are of the indicated size, all unshaded cells are orthogonally connected, and no 3-cell 'triangle' is fully unshaded (i.e. no internal vertex is entirely surrounded by unshaded cells). Black circles must be shaded, white circles must be unshaded.



Example (Penpa+): <https://tinyurl.com/2djqlshs>

Example (Kudamono): <https://tinyurl.com/3sxctn7b>

Puzzle (Penpa+): <https://tinyurl.com/24mfwyqk>

Puzzle (Kudamono): <https://tinyurl.com/44eehu93>

July 8, 2024: Combi Block

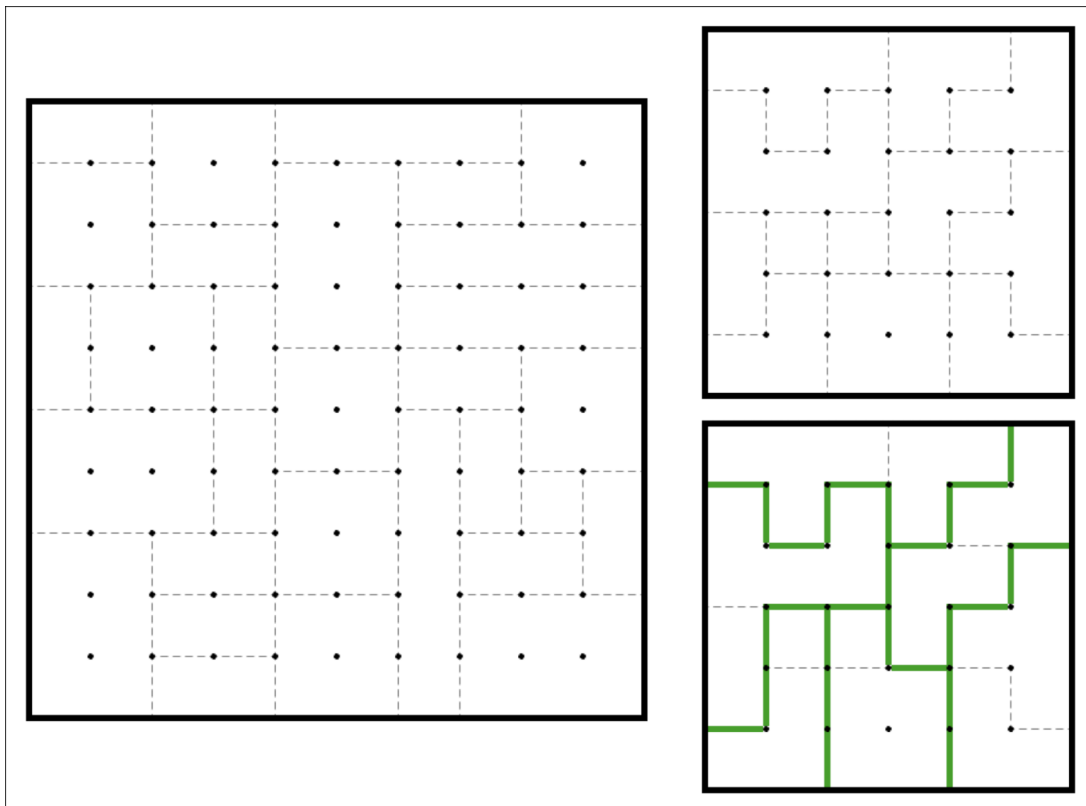
Walker

My search for the few remaining original puzzlink genres brought me to the defunct **Combi Block** warehouse on the outskirts of Puzzle City. 🏠 Years ago, it was used to create blocks that could be used in all manner of region division genres. Looking inside, I found...



Piles and piles of rectangles, of all different shapes and sizes! (Some of which may be browser-dependent.) We'll need to group them off into pairs as we search for clues. Make sure not to form any additional rectangles in the process.

Rules: Combine pairs of orthogonally connected regions such that no pair forms a rectangle and no two orthogonally adjacent pairs are the same combined shape, counting rotations and reflections as the same.



Example (puzz.link): <https://tinyurl.com/3vxn55kn>

Puzzle (puzz.link): <https://tinyurl.com/4dt9evac>

July 9, 2024: Nurikabe (Cipher)

Lavaloid

Ohaq a nice saz qv oriqe a cvtpxeqexz nvrtax inqrv jvr qhid **Nurikabe (Cipher)**! I dure hvpe nvqhinf oeirs happend qv tz kezbtvars ohen I oriqe qhid inqrv. Sis zvu knvo qhaq qhid fenre had axreasz been jeaques 9 qited oiqhvuq marianqd, ans anvqher 6 qited oiqh marianqd?

Rules:

- Shade some cells so that all shaded cells form one orthogonally connected area no 2x2 regions are entirely shaded.
- Letters cannot be shaded, and every orthogonally connected area of unshaded cells contains exactly one letter.
- Areas containing the same letter must have the same size, while areas containing different letters must be different sizes.

Interface note: You can use the table given on the right side to mark possible sizes for the letters. Numbers will not be checked by the answer checker, only the shading.

			S	T				
	E							
T				Z				
			U					
		P			Z		E	
								S
						L		
			E					

E	
L	
P	
S	
T	
U	
Z	

G			P		
	A				
			P		
G					
		G		A	

A	
G	
P	

G			P		
	A				
			P		
G					
		G		A	

A	2
G	1
P	4

Example (Penpa+): <https://tinyurl.com/2xtm8rnb>

Puzzle (Penpa+): <https://tinyurl.com/27zvhmfa>

July 10, 2024: Pentopia

bakpao

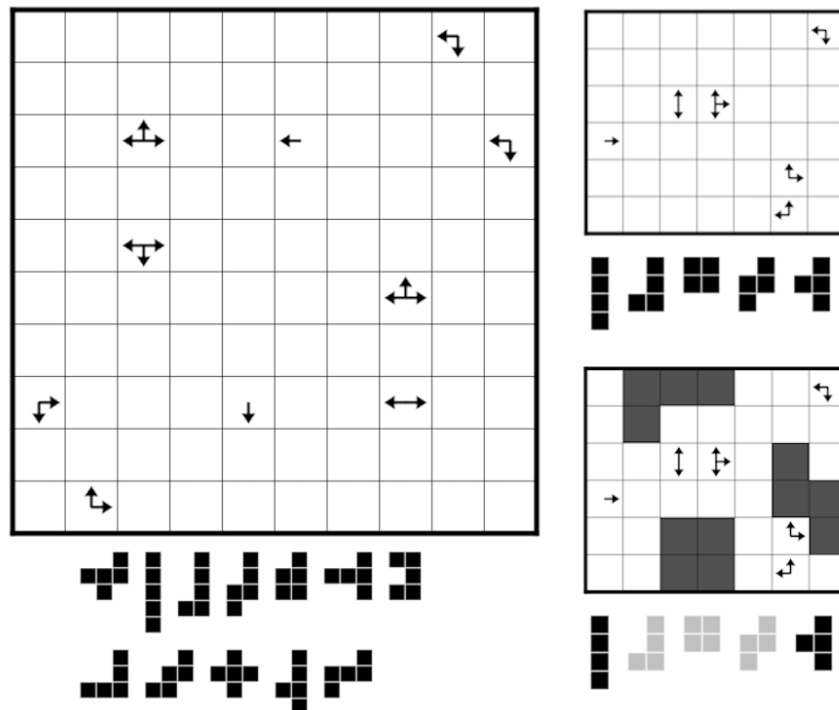
Time for another revisit of a genre we've only featured once quite long ago. I've been procrastinating doing work all morning and I'm running out of characters for the intro, so enjoy the puzzle!

Today's puzzle is a **Pentopia**!

Rules: Shade some pentominoes of cells so that no pentominoes touch one another, not even diagonally. No two shaded pentominoes may be the same shape, counting rotations and reflections as the same. Clued cells cannot be shaded, and contain arrows indicating all of the orthogonal directions in which a shaded cell appears closest to the clued cell. At least one shaded cell must appear in the direction of an arrow.

*Note that not all pentominoes have to be used and that, you guessed it, ⚠️🔴 this puzzle has a **negative constraint**! 🔴⚠️*

GAPP 101 🤔: See [Appendix 2](#) for Pentopia GAPP 101.



Example (puzz.link) from puzz.link rules page: <https://tinyurl.com/3jbzfdc5>

*The example uses tetrominoes - rules are otherwise unchanged

Puzzle (puzz.link): <https://tinyurl.com/y3ddv8cu>

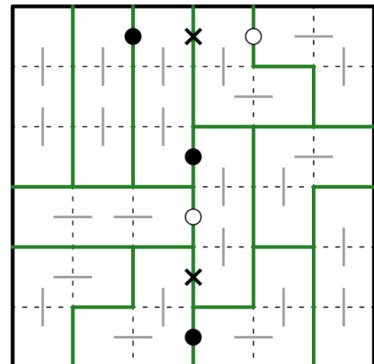
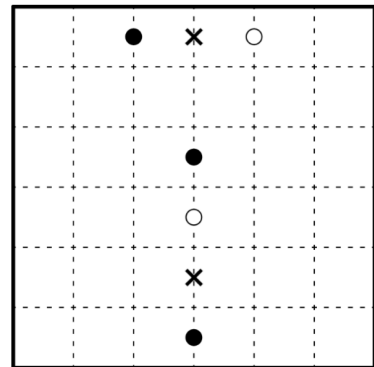
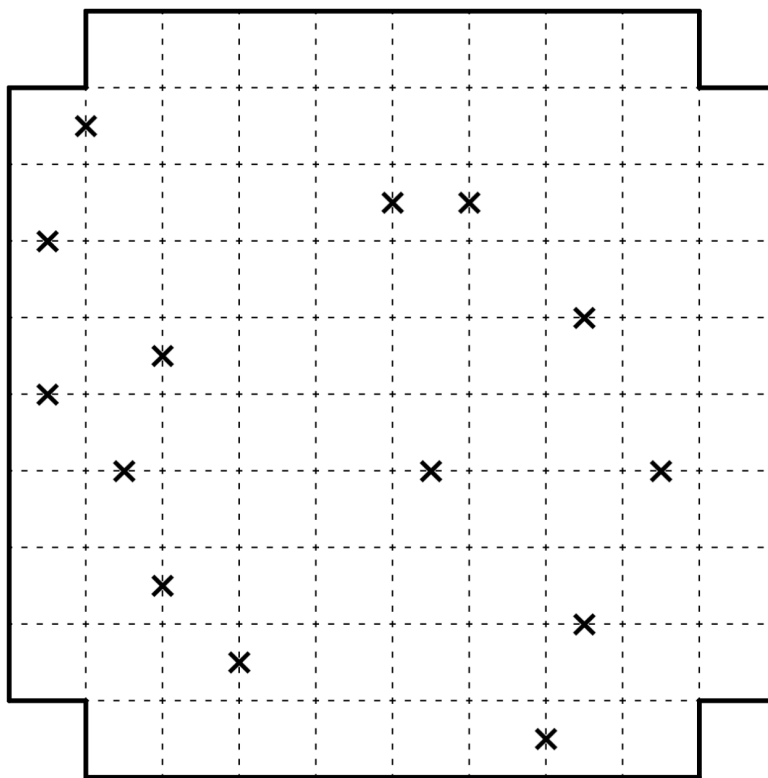
July 11, 2024: Tromino Divide

Menderbug

I promised I would revisit **Tromino Divide** with puzzles for the other clue types, so here is part 2!

Rules: Divide the grid along dotted lines into regions of exactly three cells. Clues separate two different regions with the following conditions:

- A black dot separates two regions with the same shape and orientation.
- A white dot separates two regions with the same shape but different orientations.
- A cross separates two regions with different shapes.



Example (Penpa+): <https://tinyurl.com/2xvcp6c2>

Puzzle (Penpa+): <https://tinyurl.com/25xyxm2q>

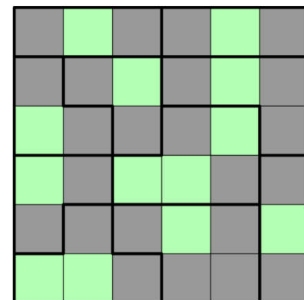
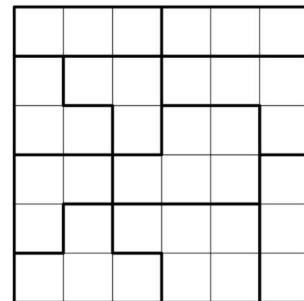
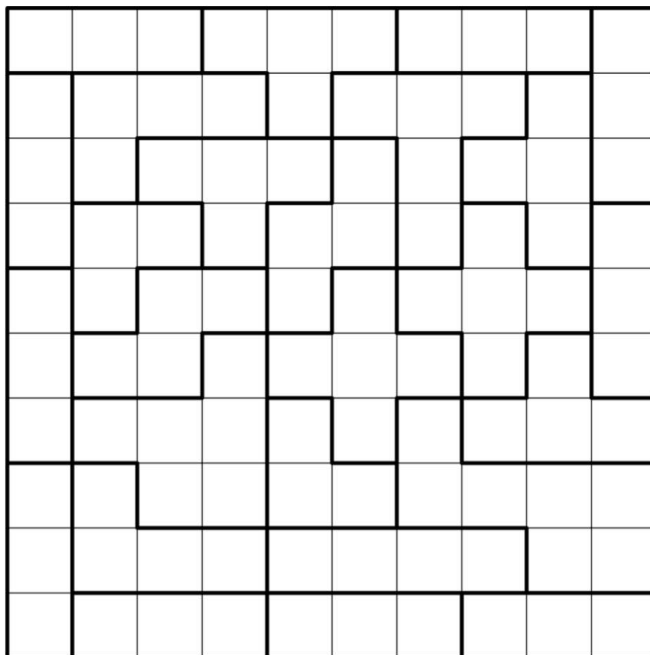
July 12, 2024: Disco

Freddie Hand

Today was scheduled to be the day of our migration to Slack. Well there was some pushback from the team and this has now been delayed indefinitely. So this puzzle is a celebration of staying on **Disco** rd!

Rules: Shade some cells to form a single connected area of shaded cells. Each region must contain exactly two separate sections of the single connected area. No 2x2 area can be entirely shaded.

This puzzle comes with a little **GAPP 101**: (ROT13) Lbh pnaabg unir n funqrq pryy/frpgvba va n ertvba gung gbhpurf rirel bgure pryy va gur ertvba - vs guvf jrer gur pnfr gura gurer jbhq or ab jnl gb svg gjb frcnegr funqrq frpgvba va gur ertvba!



Example (Penpa+), by bakpao: <https://tinyurl.com/yklav77r>

Puzzle (Penpa+): <https://tinyurl.com/2m8ktgbq>

July 13, 2024: Symmetry Area

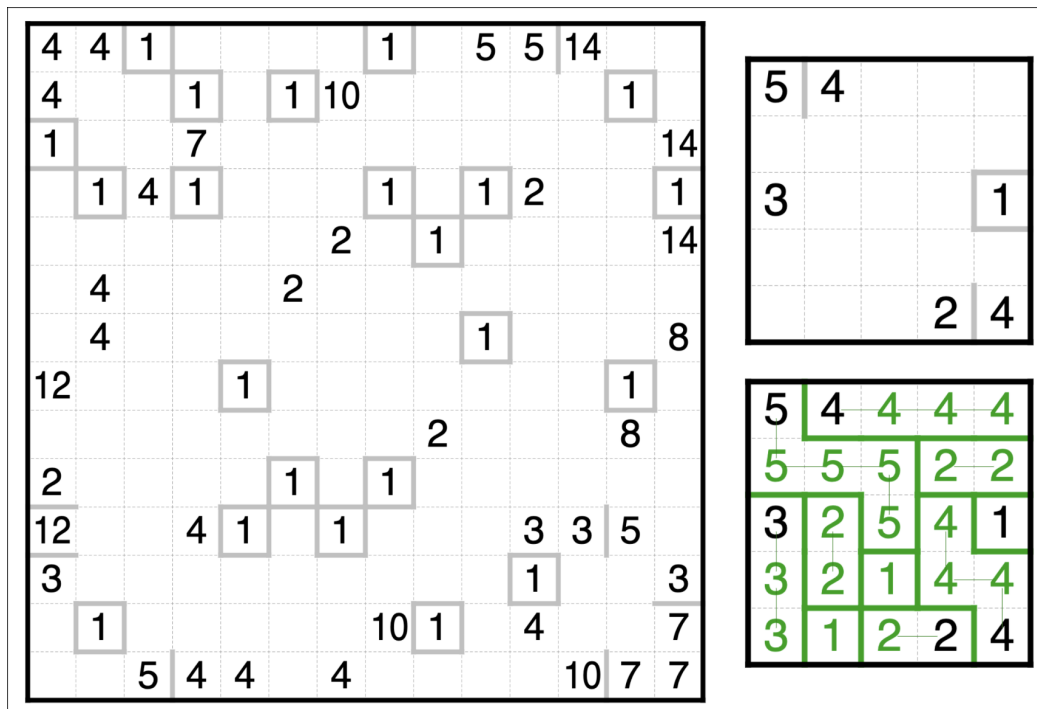
Walker

At the puzzle observatory, scientists and astronomers look to the sky, to learn more about spiral galaxies, suns and moons, and battling stars. 🌌🔭 Today, they take a closer look at the **Supersized Symmetry Area** cluster, a dense collection of galaxies whose sizes have been determined and labeled. Does this patch of sky hold the answer to the ultimate question of everything?

Rules: Divide the grid into regions of orthogonally connected cells. All regions must have 180° rotational symmetry. Two regions of the same size may not share an edge. Clued cells must belong to a region containing the indicated number of cells.

Interface Note: You can drag between cells to indicate that the cells are in the same region.

Here's a **GAPP 101** for a core idea in this puzzle: (ROT13) Vs n ertvba frpgvba jvgubhg n ahzore vfa'g flzzrgevp, vg zhfg pbagvahr gb rkgraq guebhtu zber pryyf hagvy vg'f flzzrgevp.



Example (puzz.link) by Freddie: <https://tinyurl.com/4f2e8wvn>

Puzzle (puzz.link): <https://tinyurl.com/27b4cuy2>

July 14, 2024: Honey Dozen

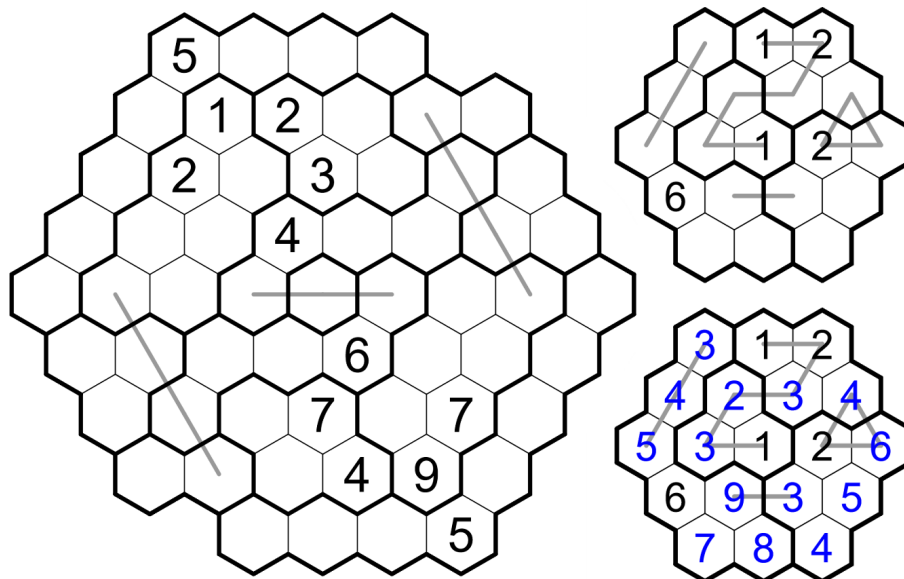
Lavaloid

Unfortunately, due to a rapid rise in strange shape prices, we couldn't afford to post a Strange-Shaped Sunday. For now, please enjoy a ✨ *Standard-Shaped Sunday* ✨. Here's a **Honey Dozen** on a normal grid.

Rules:

- Place exactly one of the digits 1-9 into every cell. Some digits may already be given.
- Numbers in each region separated by bold borders must form an orthogonally connected chain of strictly increasing consecutive numbers. (In other words, there must be a path from the lowest number in the region to the highest, increasing only by 1 every cell.)
- Adjacent cells must not contain the same number, even across region borders.
- Numbers along each group of cells connected by lines must add to 12.

Interface note: The Kudamono interface uses a "number dial" input mode, and keyboard input may not work as expected. To input a number, click on the target cell, then drag the pointer to the desired number (clockwise for higher numbers, counterclockwise for lower numbers).



Example (Kudamono) by ふーなんとかさん: <https://tinyurl.com/rsdy8asc>

Example (Penpa+): <https://tinyurl.com/2xl9dh26>

Puzzle (Kudamono): <https://tinyurl.com/24w3qt97>

Puzzle (Penpa+): <https://tinyurl.com/2c42r5oq>

July 15, 2024: Hakoiri-Masashi

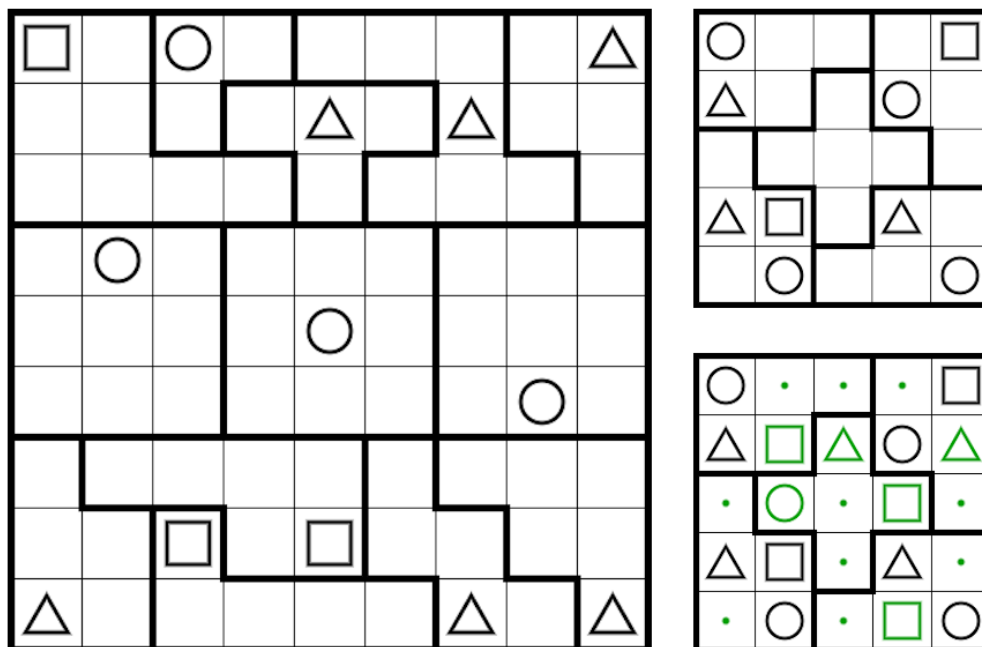
bakpao

I've been staring at my screen for the past 5 minutes trying to think of something to write in this intro, but I've got nothing. I'll blame it on it being Monday morning. We're once again revisiting a genre that has been covered only once before quite a while ago. Enjoy the puzzle!

Today's puzzle is a **Hakoiri-Masashi**!

Rules: Place some circles, triangles, and squares into the grid such that each cell contains at most one shape and the cells containing shapes form one orthogonally connected area. Each region must contain one of each shape. Two copies of the same shape may not touch one another, not even diagonally.

Interface note: You can input shapes and auxiliary dots (for unused cells) by clicking the corresponding shape in the panel, by clicking the cell you want to put a shape in repeatedly (it will cycle through the options) or use keyboard shortcuts 1/2/3/4 or Z/X/C/V (circle/triangle/square/auxiliary dot).



Example (puzz.link, from puzz.link rules page): <https://tinyurl.com/y6zarxbv>

Puzzle (puzz.link): <https://tinyurl.com/2582bvjt>

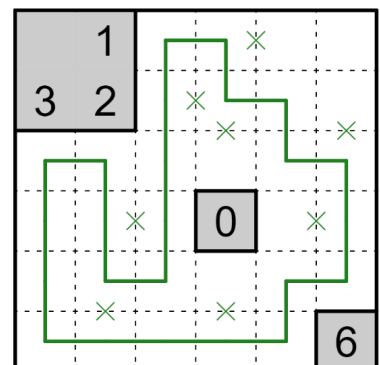
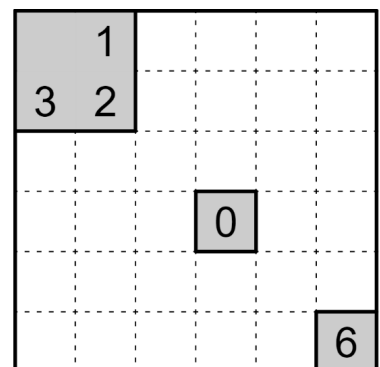
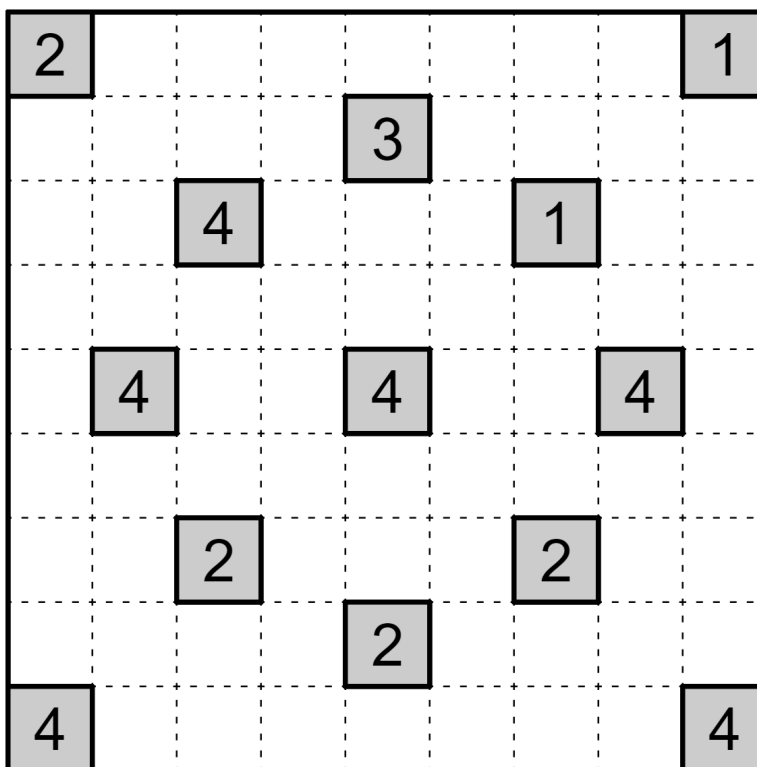
July 16, 2024: Grandstands

Menderbug

The Genre Formerly Known as Canal-View-Like Loop has been added to Kudamono, so I figured it's time for a revisit. Enjoy this **Grandstands**!

Rules: Draw a non-intersecting loop through the centres of some empty cells. Number clues indicate the total length of straight line segments which start in a cell orthogonally adjacent to the clue and extend away from the clue.

Notation tip: You can place crossmarks when a clue has been satisfied to remind yourself that the loop segments extending from it cannot extend any further. This includes placing crossmarks on sides that don't have any segment yet. On Penpa, just right-click or tap an edge, on Kudamono you can also right-click, but on mobile you'll need to switch to the crossmark mode at the bottom of the screen.



Example (Kudamono): <https://tinyurl.com/c64a97fh>

Example (Penpa+): <http://tinyurl.com/ysfzmgr3>

Puzzle (Kudamono): <https://tinyurl.com/msyy9kxk>

Puzzle (Penpa+): <https://tinyurl.com/229zcny3>

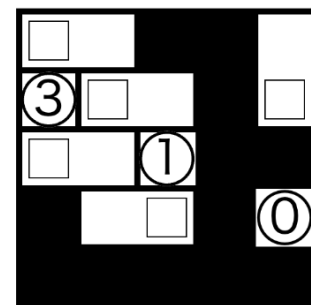
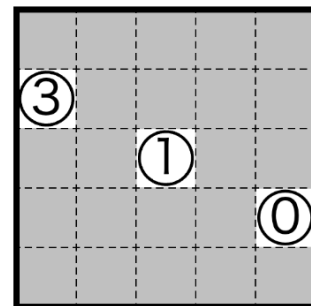
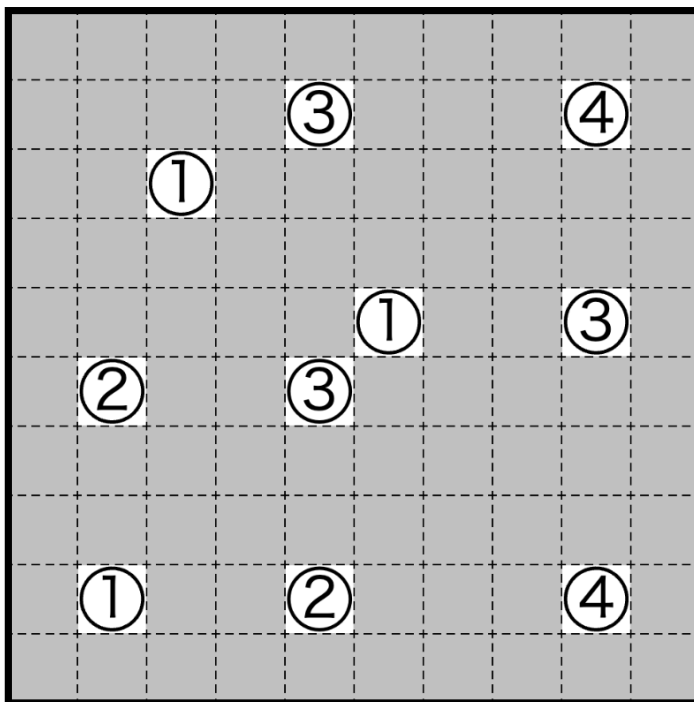
July 17, 2024: Shugaku / School Trip

Freddie Hand

Time for a **Shugaku/School Trip** today. I'm off to bed. Have fun deciding where to sleep among yourselves. Just make sure that you don't cut me off from the aisle. 

Rules: Place some non-overlapping 1x2 beds into the grid such that each bed contains a pillow on one of its cells, and that vertically oriented beds do not have the pillow on the top half. Shade all of the non-bed cells such that each bed is orthogonally adjacent to at least one shaded cell, all shaded cells form one orthogonally connected network, and no 2x2 regions of cells are entirely shaded. Cells containing circles cannot be shaded cells nor beds, and if a circle is numbered, it indicates the number of cells containing pillows orthogonally adjacent to it.

This little **GAPP 101** might help: (ROT13) Fbzz ybpngvbaf sbe cvyybjf jbhyyq sbepr n iregvpy orq jvgu gur cvyybj ng gur gbc.



Example (Puzz.link): <https://tinyurl.com/3jsd8ufc>

Puzzle (Puzz.link): <https://tinyurl.com/mwjki2fv>

July 18, 2024: Continents

Walker

Today's GAPP is a **Continents**, a genre featured in Puzzle Grand Prix Round 7 taking place this weekend! As usual, you can claim a **bonus otter** 🦦 for participating!

Rules: Place numbers from the range given outside the grid into some cells so that each row and column contains each number once. Numbers form orthogonally connected groups, called "continents". A clue outside the grid represents the sum of the numbers in the first continent seen in the corresponding row or column from that direction.

Here's a **GAPP 101**: (ROT13) Gurur ner rknpgyl guerr ahzoref va n eby / pyhza, naq gurl nqq gb fvk. Gurfr pbafgenva ubj ynetr pbagvaragf pna or cynprq.

The diagram illustrates two examples of the Continents puzzle. The left example shows a 6x6 grid with clues 17, 17, [1-3] at the top, 1, 2 on the left, 12, 4 on the right, and 1, 12 at the bottom. The right example shows two 4x4 grids. The top 4x4 grid has clues 6, [1-2] at the top, 1 on the right, and 8 on the bottom. The bottom 4x4 grid has clues 6, [1-2] at the top, 1 on the right, and 8 on the bottom. Both 4x4 grids show a solution with numbers 1, 2, and 3 placed in cells, with some cells shaded grey.

Example (Penpa+): <https://tinyurl.com/2xs2roe5>

Puzzle (Penpa+): <https://tinyurl.com/22f2btpg>

July 19, 2024: Point a Star

Lavaloid

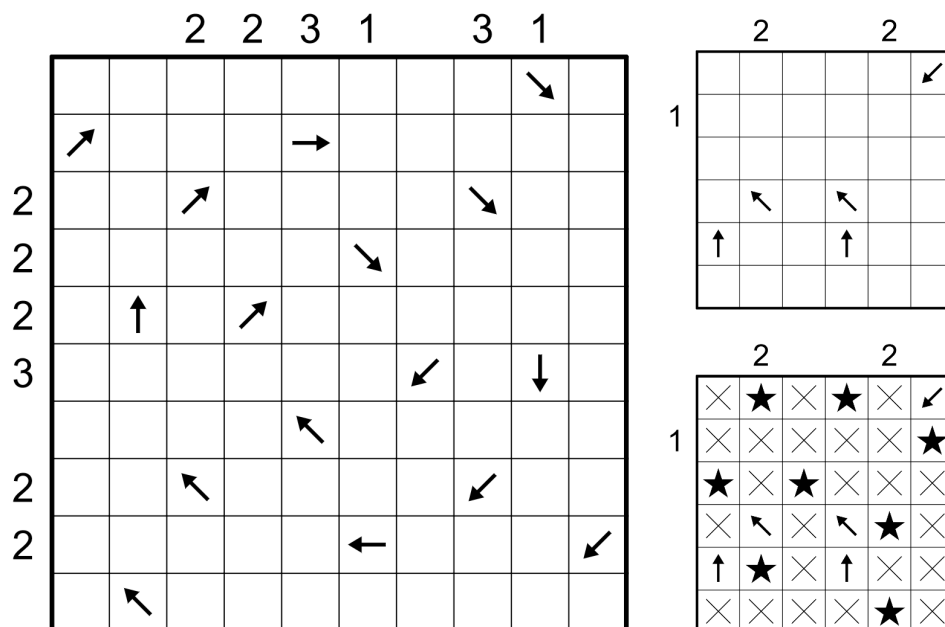
You step onto the stage. Lights and cameras are all pointing at you, and the crowd's eyes are fixed on you. Tonight, *You are the Star* of the show... wait wrong genre

You step onto the stage. Lights and cameras are all pointing at you, and the crowd's eyes are fixed on you. Tonight, ~~You are the Star~~ **Point a Star** of the show.

Rules: Place stars into some cells such that no two stars touch orthogonally or diagonally. Numbers outside the grid shows the amount of stars in that row or column. Arrows point to exactly one star. Stars cannot occupy the same cell as arrows.

GAPP 101: There's a very common Star Battle deduction that you'll likely need to solve this puzzle. (ROT13) N erpgnathyne ertvba bs fvmr 1 k 2A pna bayl pbagnva A fgnef ng zbfq, bar sbe rnpu qbzvab. Vs n qbzvab zhfg pbagnva n fgne, gura nyy pryyf gbhpuvat vg nybat gur ybatre fvqr pnaabg nyfb pbagnva n fgne, bgurejvfr gurl zhfg gbhpu qvntbanyyl.

Interface note: You can use *Shading* or *Composite > Star Battle* for answer checking.



Example (Penpa+): <https://tinyurl.com/2dlsayxr>

Puzzle (Penpa+): <https://tinyurl.com/2a3bqulv>

July 20, 2024: Hebi-Ichigo

bakpao

Reminder that the penultimate round of this year's Puzzle GP is ongoing now! Check it out if you haven't yet at <https://gp.worldpuzzle.org/content/puzzle-gp> and participate for a bonus otter! 🦦

Today's puzzle is a **SUPERSIZED Hebi-Ichigo!**

Rules: Place numbers into some empty cells such that each orthogonally connected group forms a sequence of consecutive numbers from 1 to 5. Each number in the sequence must be orthogonally adjacent to the next. These groups may not share an edge with one another. The 1 in a sequence must not be able to see any numbers in a straight line in the direction it's pointing (away from its adjacent 2) unless a clued cell blocks its view. A clue represents the first number seen in the indicated direction, up until the next clued cell in that direction.

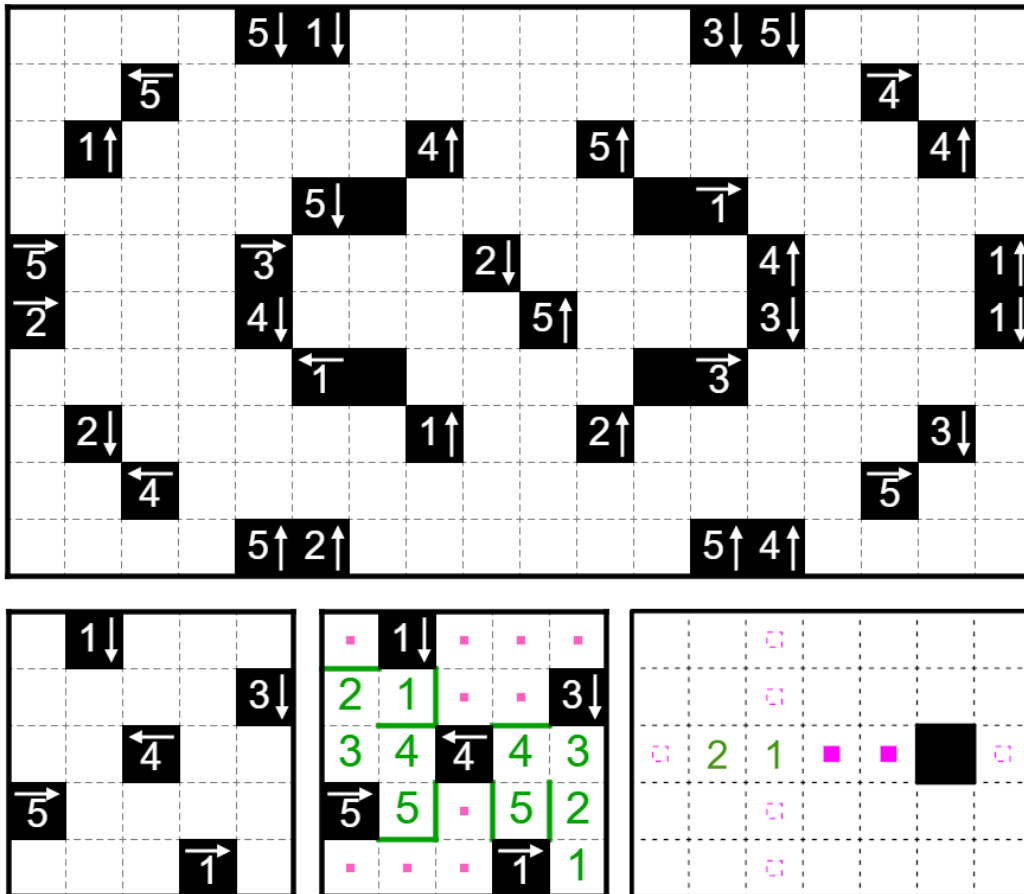
Pointing away from the 2 means only pointing along the line through the 2 and the 1! See the example diagram, where cells with solid pink squares cannot contain any numbers, while cells with dashed squares can.

Interface note 🖥️: You might find it helpful to select the "Draw border around a snake" option which makes clearer the shape of the snake. Also, you can drag from an already placed number to automatically place the next number in the sequence (hold left mouse button for increasing, right mouse button for decreasing, or select from the input modes "Drag inc./dec. nums").

↓ Puzzle on the next page ↓

↑ Intro on the previous page ↑

Rules: Place numbers into some empty cells such that each orthogonally connected group forms a sequence of consecutive numbers from 1 to 5. Each number in the sequence must be orthogonally adjacent to the next. These groups may not share an edge with one another. The 1 in a sequence must not be able to see any numbers in a straight line in the direction it's pointing (away from its adjacent 2) unless a clued cell blocks its view. A clue represents the first number seen in the indicated direction, up until the next clued cell in that direction.



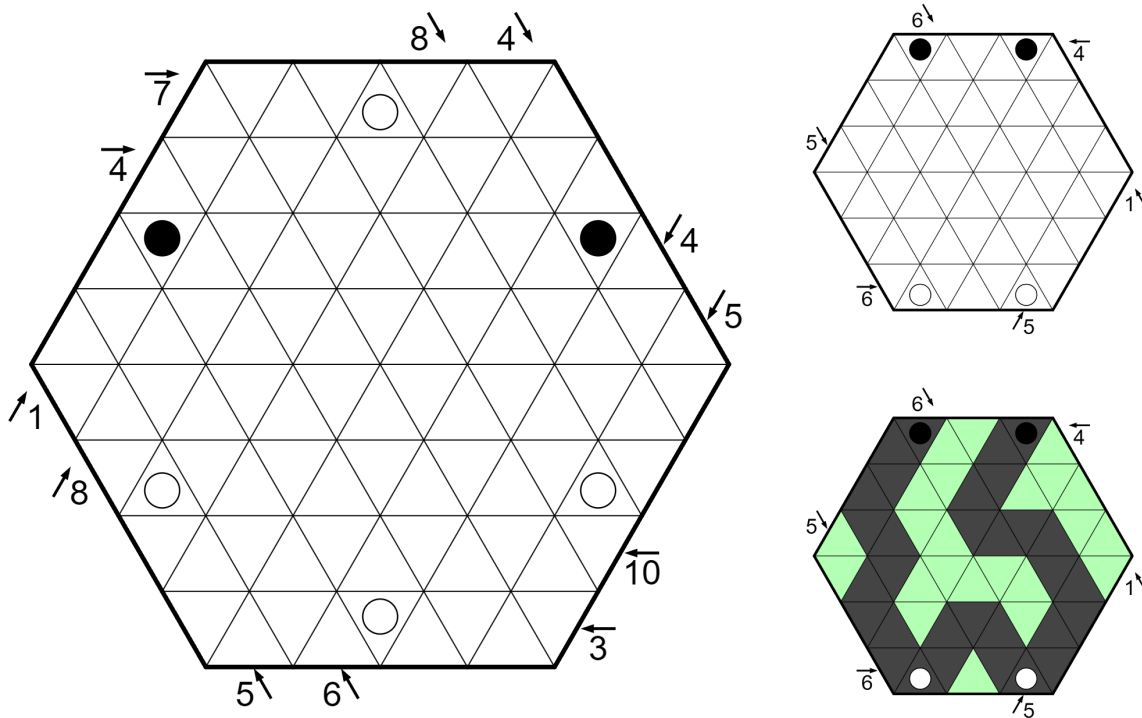
Example (puzz.link) by Freddie: <https://tinyurl.com/ybn9ysdk>
 Main puzzle (puzz.link, landscape): <https://tinyurl.com/yynurk77>
 Main puzzle (puzz.link, portrait): <https://tinyurl.com/24cwct22>

July 21, 2024: Snake (Triangular)

Menderbug

Some Sundays, I struggle to find a combination of genre and grid type that works well and is still fun to solve (as you might have noticed). And then other (rare) times, I stumble upon a combination that works so well, I can't believe I haven't seen it before. Such as **Snake** on a **Triangular** grid. In fact, after playing around a bit more with this variant, I'm no longer convinced that the square grid is the best option for this genre.

Rules: Shade some cells to form a non-intersecting path which does not touch itself, not even at a point. Black circles must lie on one end of the path. White circles must lie somewhere along the path, but not at an end. A number outside the grid represents how many cells in the indicated row are shaded.



Example (Penpa+): <https://tinyurl.com/2coq4xjf>

Puzzle (Penpa+): <https://tinyurl.com/2ygyqnyw>

July 22, 2024: Wall Genre Mashup

GAPP Team

Today is the day! The GAPP series has been running for **1000** days! To celebrate, we made a very special puzzle for you, but more on that in the next message. First things first...

We dove deep into our internal spreadsheet to get you some juicy stats across these last 1000 days! Just a note that all of these stats only include the main series and not any bonus puzzles we've published as part of the Mind the GAPP collections, nor the many example puzzles we have made.

- In total, **1039** puzzles were written across **597** different rulesets by **15** different authors.
- Together, these puzzles contain **103,389** cells, of which **99,588** were square, **1,900** were hexagonal and **1,309** were triangular (the rest are an assortment of pentagons, octagons, non-square quadrilaterals and a couple irregular cells).
- The most common grid sizes are, somewhat unsurprisingly 10x10 (**359** puzzles), 9x9 (**165**), 8x8 (**116**), 7x7 (**48**) and 6x6 (**37**). But then we have our most common supersize, 18x12 (**22**) before 5x5 (**17**), which is actually tied with 18x10.
- The most commonly featured genre is tied between *Nurikabe* and *Tapa* at **10** puzzles each, followed by a three-way tie at **8** puzzles between *Akari*, *Heyawake*, and *Shakashaka*. If we include variant puzzles then *Tapa* beats *Nurikabe* **22** to **17**, mostly thanks to last year's *Tapa* week. There's a big shakeup in the rest of the top 5 though, with the next base genres being *Masyu* (**15**), *Slitherlink* (**13**), and *Yajilin* (**12**).
- The most common variants (applied to any genre) are *Hexagonal* (**23**), *Full*, i.e. loops that visit every cell (**8**), and *Triangular* (**6**).
- The most commonly used bird is the *Warbler* (**16**), followed by *Eagle/Owl* (**15**), *Lark* (**12**), and *Robin/Tern* (**11**).
- Of the main team members, past and present, Eric most liked to present you with new genres (**84%** of his GAPPs were first-time features) while Shye preferred to hone your skills on genres you'd already seen before (**46%** first-time features).

And finally, here is how the puzzles break down by genre category (which is somewhat arbitrary, but it's still quite interesting):

- Line Drawing (**345**)
 - Loop (**253**), Path (**51**), Network (**26**), Other (**15**)
- Shading (**310**)
 - Other (**147**), Wall (**100**), Dynasty (**63**)
- Region Division (**134**)
- Object Placement (**113**)
- Number Placement (**82**)
- Snake (**27**)
- Sliding (**23**)
- Word Placement (**5**)

So here's to the next 1000 days! Do you have any feedback for us? Is there something you'd like to see us do more or less of? Now's as great a time as any to let us know.

With that out of the way, it's time for today's puzzle. We wanted to make something really special for today, so the entire team put their heads together and made a puzzle with *1000 cells*, mashing up ten different shading genres we've featured in the past. Now, we do remember what the A in GAPP stands for, and by its nature this puzzle is going to be a little more intimidating than usual, but we tried our best to make this the most Approachable™ such mashup in existence. We also assume that most of you have never solved a big mashup puzzle before, so here are a few tips to make the experience as smooth as possible:

- Familiarity with the individual genres helps a lot. All of them have been featured on GAPP before, so if any seem unfamiliar to you, you can easily find some practice puzzles.
- Try the example puzzle! It should help you clarify how the various rulesets interact at the section boundaries. Also a quick note, there's a couple of steps in the example puzzle that are a little gnarlier than anything in the main puzzle, in the interest of showing all rules in a smaller space. Don't let that put you off the main puzzle, you can always look at the solution for the example.
- There are many entry points to this puzzle. If you get stuck, try looking for progress elsewhere.
- Mistakes are your biggest enemy in a puzzle like this. They are hard to track down and fix when there's so much puzzle to look at. Especially if this is your first mashup puzzle, don't try to race it... take your time and solve the puzzle carefully so you can be sure of your progress.
- On an interface note, since some sections use regions, we recommend using the GR or LG shades of Surface mode, as the darker grey can easily obscure region boundaries (the Penpa links should be set to GR by default).

Alright, let's get into it...

Rules: Shade some cells to form a single connected area of shaded cells. No 2x2 area can be entirely shaded. Within each 10x10 section of the grid, additionally follow the rules of the indicated genre:

- **LITS** by Lavaloid: Each region contains exactly four shaded cells, which must be orthogonally connected to each other, forming a tetromino. Two tetrominoes of the same shape may not touch orthogonally, counting rotations and reflections as the same.
- **Nurikabe** by Freddie: Clues cannot be shaded. Every orthogonally connected area of unshaded cells which is at least partially in this section contains exactly one Nurikabe clue, the value of which represents the size of the area (*including cells outside the section*).
- **Canal View** by bakpao: Clues cannot be shaded, and represent the number of shaded cells connected in a straight line horizontally or vertically to the clue. (*Clues can see past the edge of this section.*)
- **Cross the Streams** by Menderbug: Clues below the grid represent the lengths of the blocks of consecutive shaded cells *within this section* in the corresponding column, in order. A question mark represents one block of an unknown number of cells. An asterisk represents any number of blocks of shaded cells, including none at all.
- **Parquet** by Walker: In each bold region, entirely shade one subregion and leave the other unshaded. There may not be a closed loop of shaded cells *completely contained within this section*.

Note: Even though we've removed some internal borders for visual clarity, the (sub)regions are still considered to be made up of unit cells as far as the rules of neighbouring sections are concerned.

- **Half Piece** by Lavaloid: Shade exactly one domino (two adjacent cells) in each outlined 2x2 block. Some shaded cells have been given.

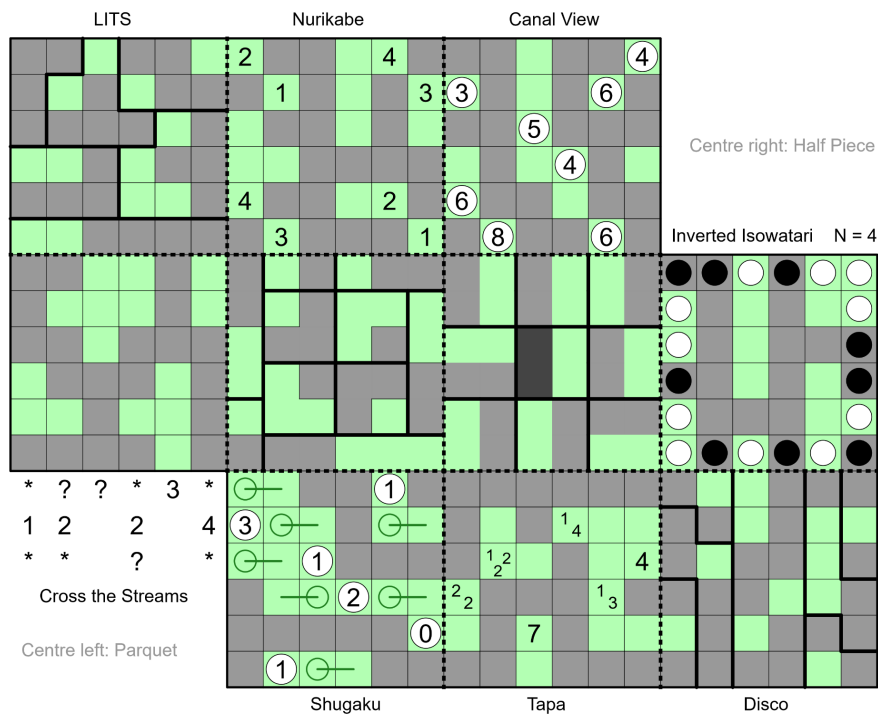
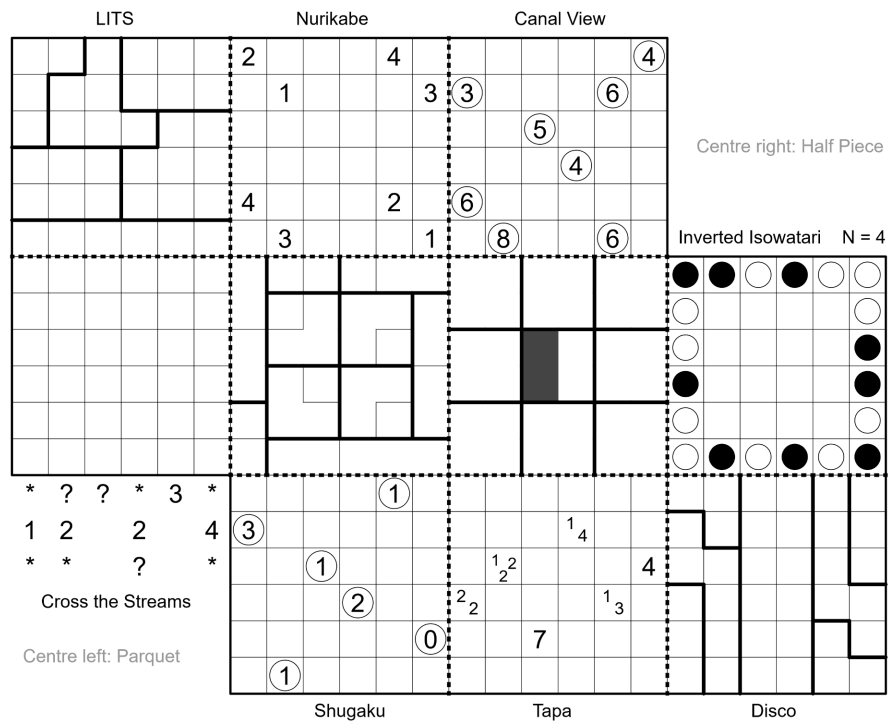
Note: The genre's usual restriction on *unshaded* 2x2s is **not** used in this puzzle.

Note: Even though we've removed the internal borders for visual clarity, the blocks are still considered to be made up of four unit cells as far as the rules of neighbouring sections are concerned.

- **Isowatari (Inverted), N=4** by Menderbug: Black circles must be shaded and white circles must be unshaded. Groups of orthogonally connected unshaded cells which are *at least partially within this section* must contain exactly four cells.
- **Shugaku / School Trip** by bakpao: Unshaded, empty cells *within this section* are divided into 1x2 beds, each with a pillow on one of its two cells. Each bed must be orthogonally adjacent to at least one shaded cell (which may be in an adjacent section). Clues cannot be shaded and indicate the number of pillows appearing in cells orthogonally adjacent to it. A vertically oriented bed must have its pillow on its bottom half.

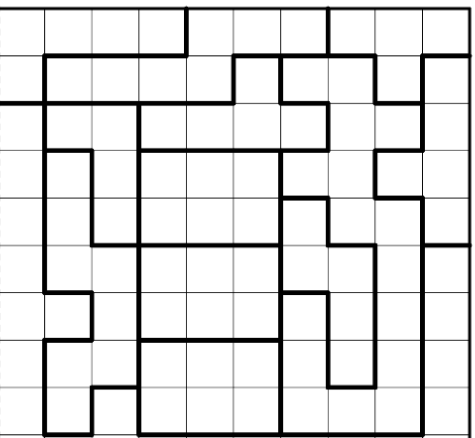
Note: You can switch to Composite > Line OX to keep track of the beds. This is not required for answer check.

- **Tapa** by Freddie: Clues cannot be shaded, and represent the lengths of the blocks of consecutive shaded cells in the (up to) eight cells surrounding the clue. (*Clues can see past the edge of this section.*)
- **Disco** by Walker: Each region must contain exactly two separate orthogonally connected groups of shaded cells.

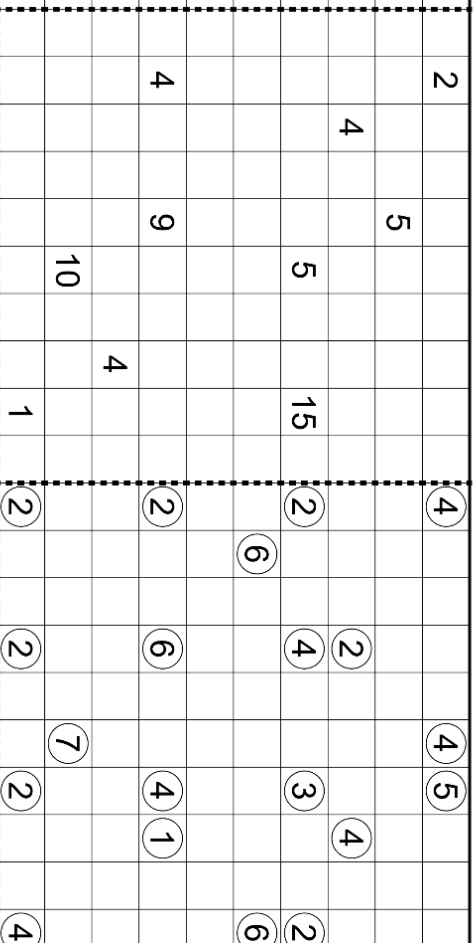


Example (Penpa+): <https://tinyurl.com/2xpm77jk>
 Puzzle (Penpa+): <https://tinyurl.com/2awofu5g>
 Walkthrough: <https://youtu.be/5fAMQuvamsE>
 ↓ Printable image of the puzzle on the next page ↓

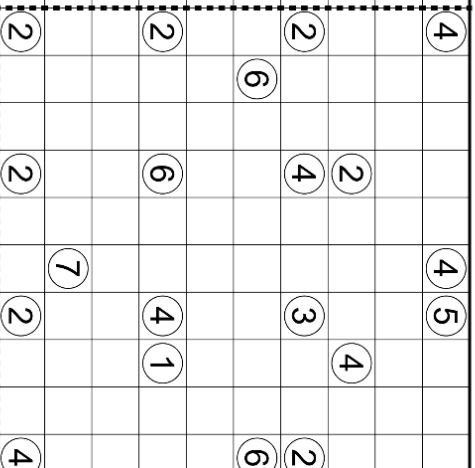
LITS



Nurikabe

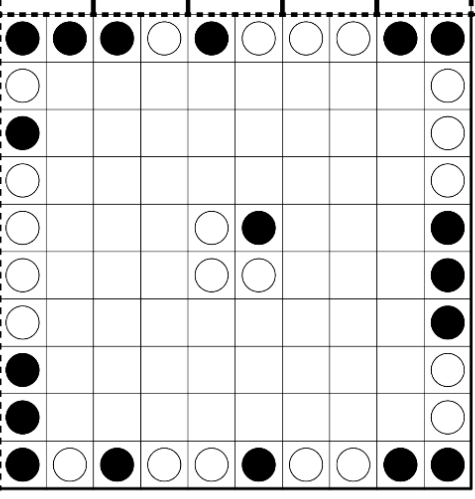


Canal View



Centre right: Half Piece

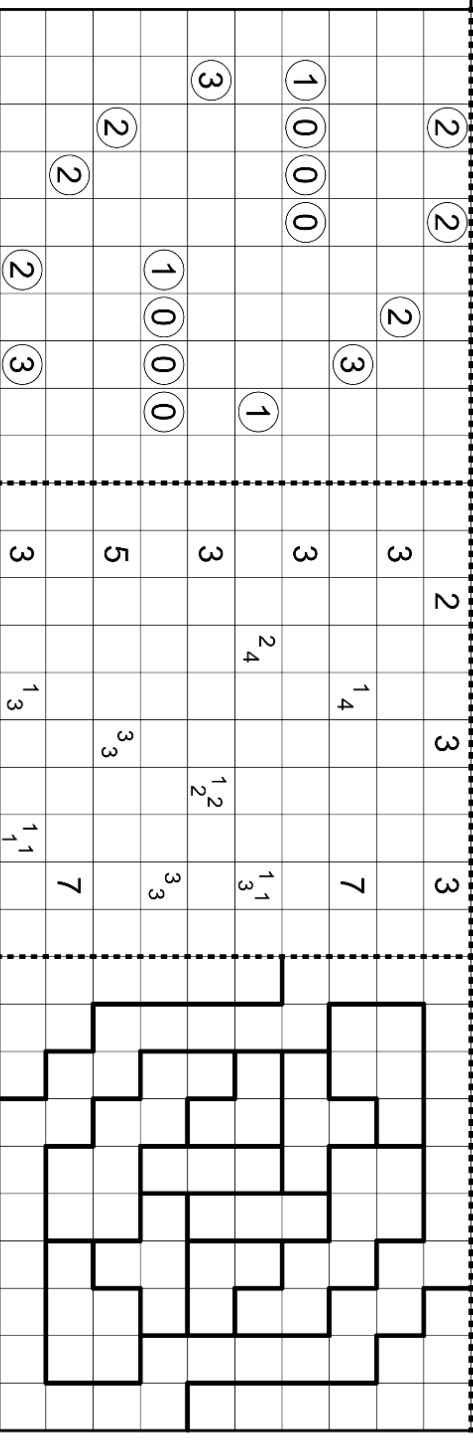
Inverted Isowatari


$$N = 4$$

1	7	3	?	?	2	4	2	3	3
2	*	*	?		?	4	?		3
?			3		?		?		

Cross the Streams

Centre left: Parquet



Shugaku

Tapa

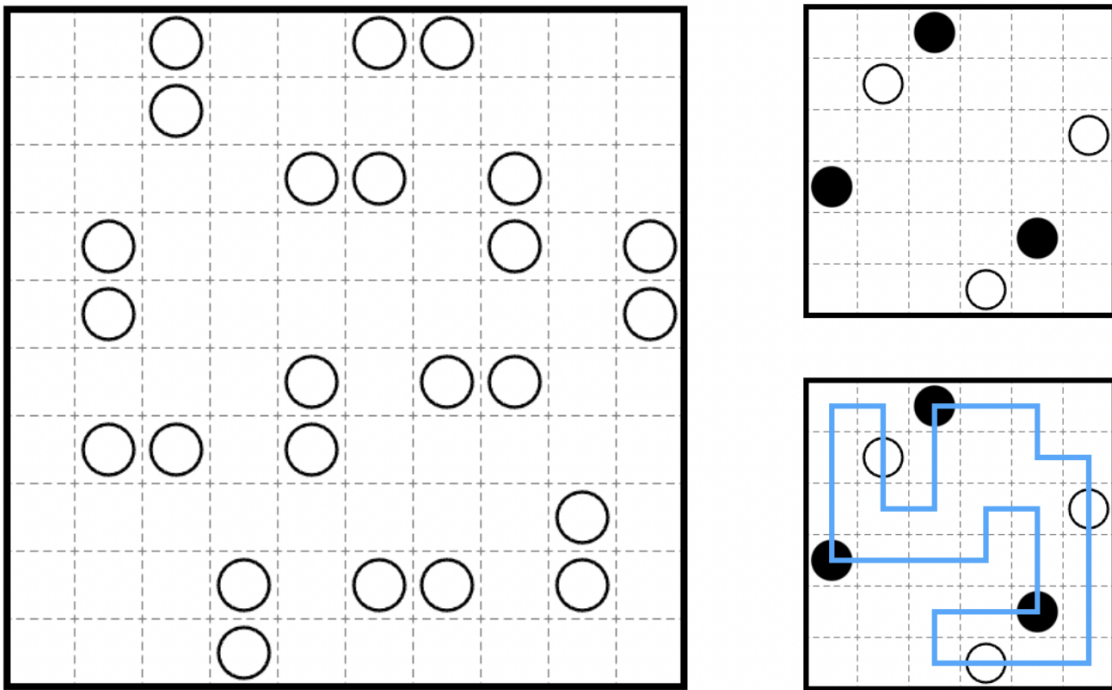
Disco

July 23, 2024: Masyu

Freddie Hand

I hope you're feeling all white after yesterday's workout. This **Masyu** should serve as a cooldown.

Rules: Draw a non-intersecting loop through the centers of some cells that passes through every circle. The loop must turn on black circles and travel straight through the cells on either side. The loop must go straight through white circles, and turn in at least one of the cells on either side.



Example (Puzz.link) by Eric: <https://tinyurl.com/37kxaswe>

Puzzle (Puzz.link): <https://tinyurl.com/3f9ba2j5>

July 24, 2024: Arukone

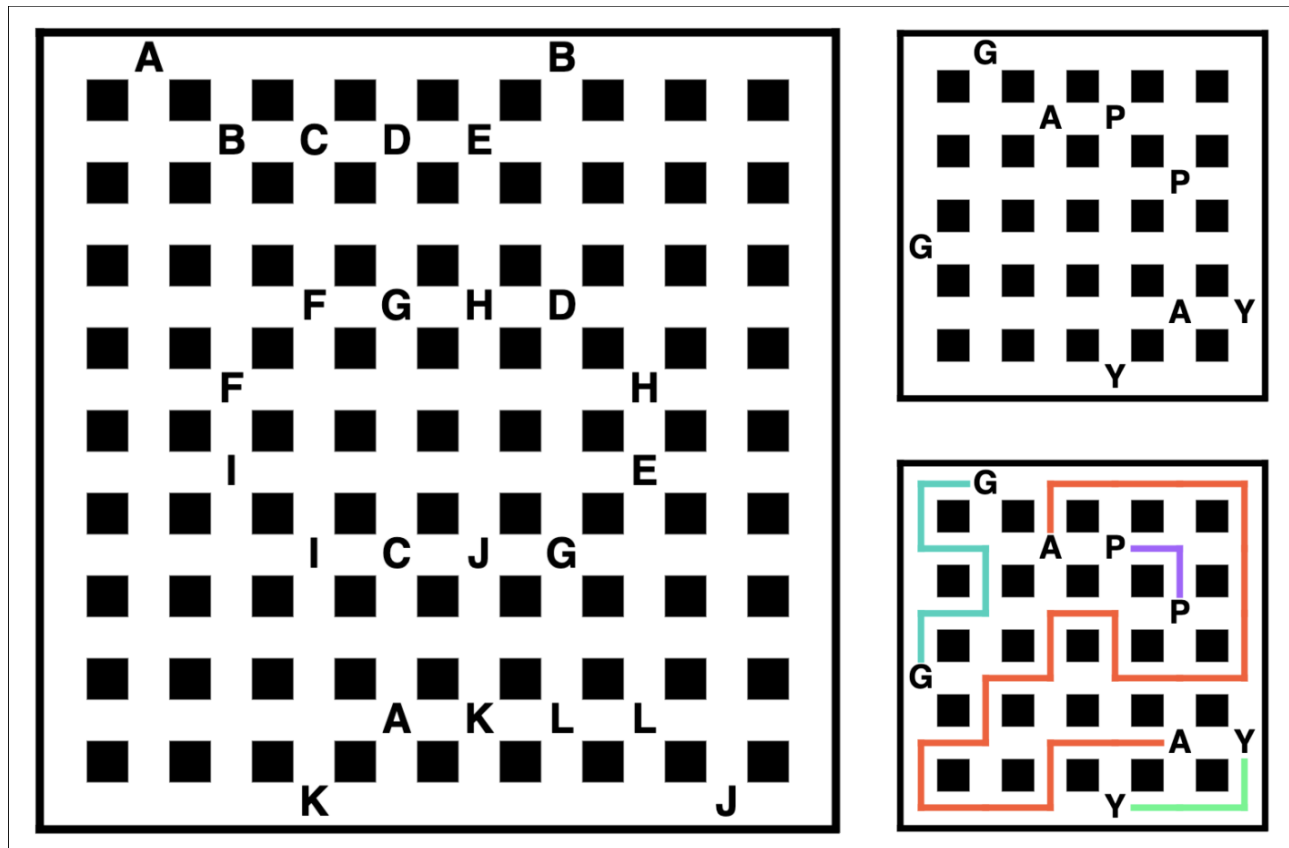
Walker

Here's **Arukone**! It's like Numberlink, but with one important change: all of the cells need to be used. Actually, two important changes: it uses letters

A	B
C	D

 🤖 In Numberlink, it's often useful to make fairly direct connections; here, the paths can be much more winding!

Rules: Draw non-intersecting paths through the centers of cells, each connecting one clue to its equal counterpart. Every cell must be used by a path.



Example (puzz.link): <https://tinyurl.com/3pyvtxrk>

Puzzle (puzz.link): <https://tinyurl.com/2ct4p2mj>

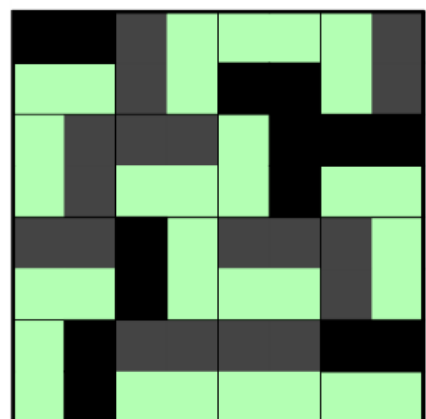
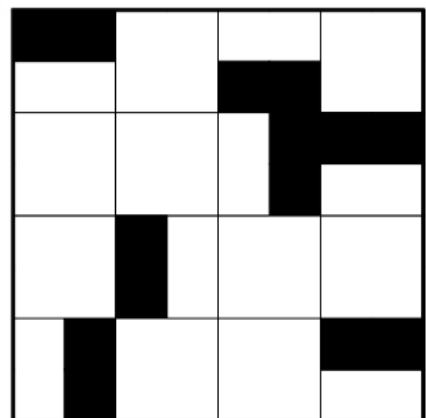
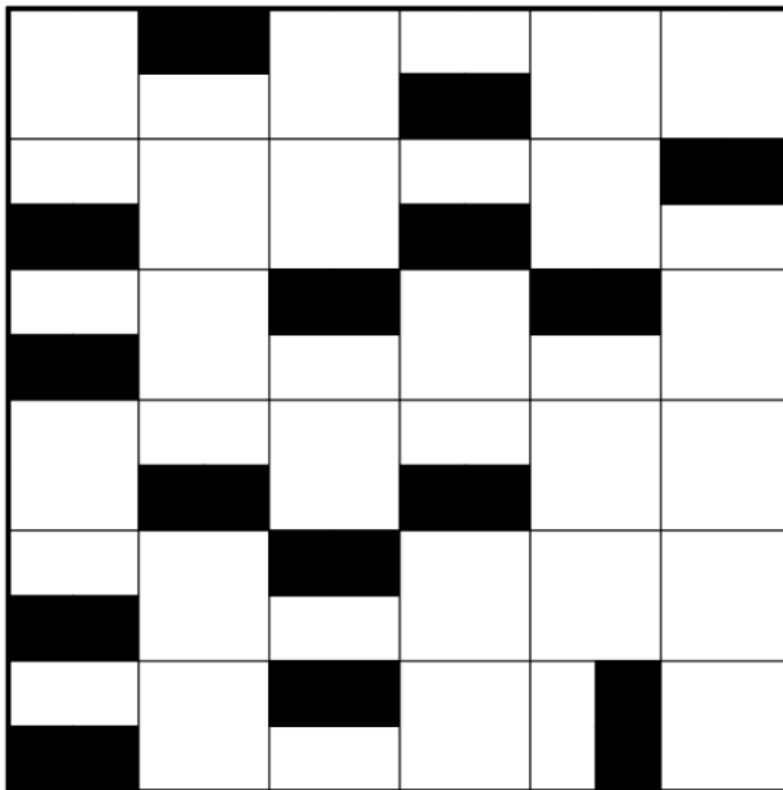
July 25, 2024: Half Piece

Lavaloid

In the GAPP 1K puzzle, I set the Half Piece section, but it was missing the unshaded 2x2 rule, and adding it would break the puzzle. (Thanks kinoseidon for first noticing this error.) To repent for my sin, today's GAPP is a **Half Piece**. With the correct rules this time... I think.

Rules: Shade exactly one domino (two adjacent cells) in each outlined 2x2 block such that all shaded cells are orthogonally connected. Some shaded cells have been given. No 2x2 area may be entirely shaded or unshaded, even those that are offset from the gridlines.

Note on the rules: The ruleset is phrased originally (and in the first Half Piece) such that the dominoes are half-cells, and the 2x2 regions are instead 1x1.



Example (Penpa+): <https://tinyurl.com/2x6drfs7>

Puzzle (Penpa+): <https://tinyurl.com/2xntnreg>

July 26, 2024: Point Plate

bakpao

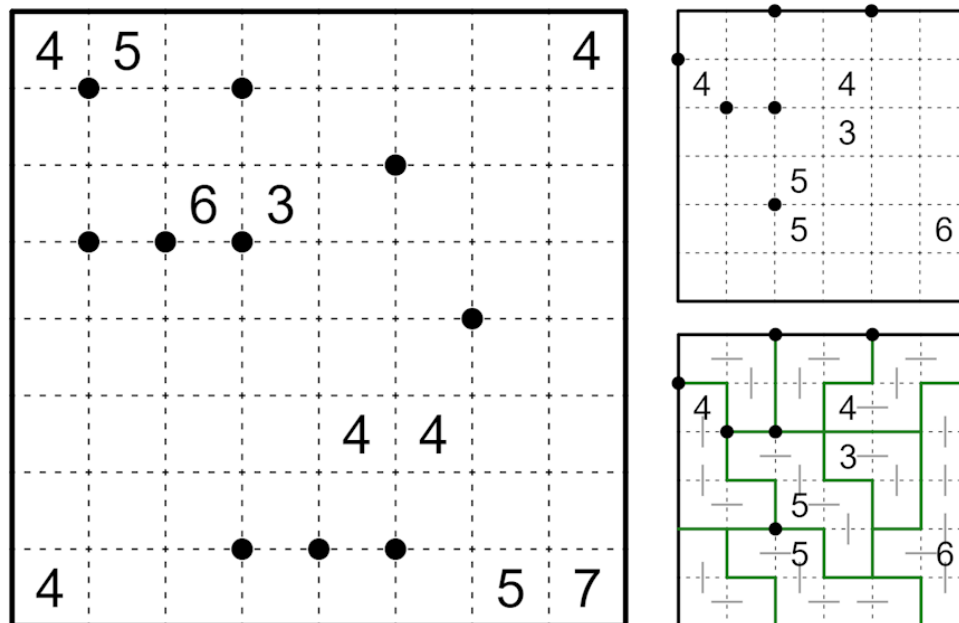
It's been great seeing all your kind words of appreciation for our milestone puzzle! I noticed the other day that my upcoming post on my personal blog will be my 100th entry. To celebrate, I've decided to try and write another mashup using the same grid, rules and genres, but without the difficulty cap. It will probably be a while before it's finished, but if you're eager to explore the combinations some more, keep an eye out 👁️!

As for today, we're doing another new Nikoli genre!

Today's puzzle is a **Point Plate**! This type features in the two most recent installments of Nikoli's quarterly Puzzle Communication magazine. This is a revised version of the original genre, which did not have number clues. I think adding them was a good choice. Also, the Nikoli version uses given region borders, but I've left those out for today.

Rules:

- Divide the grid into regions of orthogonally connected cells such that each region contains at most one number clue.
- Number clues represent how many cells are in the region the clue belongs to.
- Regions cannot be rectangular in shape and cannot cover 2x2s areas.
- Exactly three region borders extend from grid points marked with a dot, each separating different regions. Not all dots are necessarily given.



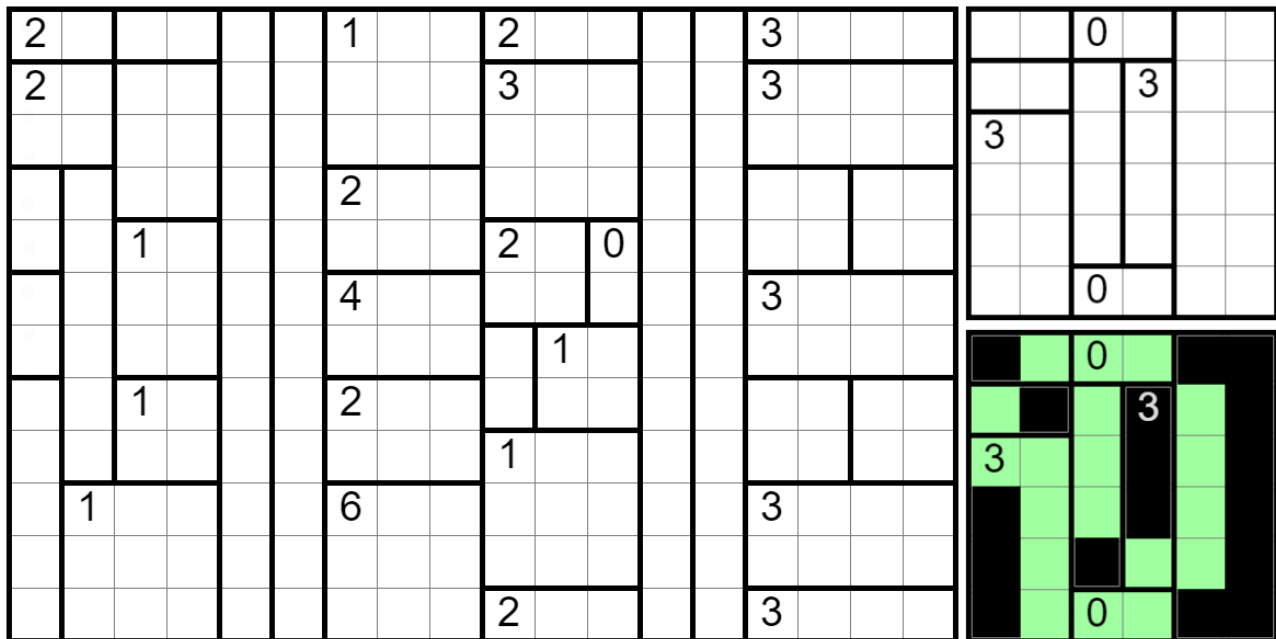
Example (Penpa+) -- a bit tricky: <https://tinyurl.com/2587xh4r>
Puzzle (Penpa+): <https://tinyurl.com/2amtb32n>

July 27, 2024: Heyablock

Menderbug

After Monday's puzzle, it almost feels a bit silly to call today's **Heyablock** "supersized". Don't forget about the slightly awkward situation in this genre where all regions contain at least one shaded cell *unless* a 0-clue explicitly overrides that requirement.

Rules: Shade a single group of orthogonally connected cells in each region so that the remaining unshaded cells (in the entire grid) form one orthogonally connected area. Shaded groups may not share a bold border. Regions with numbers must contain the indicated amount of shaded cells. Unclued regions must contain at least one shaded cell. A line of consecutive unshaded cells may not cross more than one bold border.



Example (puzz.link): <https://tinyurl.com/bdeffj3h>
Puzzle (puzz.link, landscape): <https://tinyurl.com/55dhj47p>
Puzzle (puzz.link, portrait): <https://tinyurl.com/568356ca>

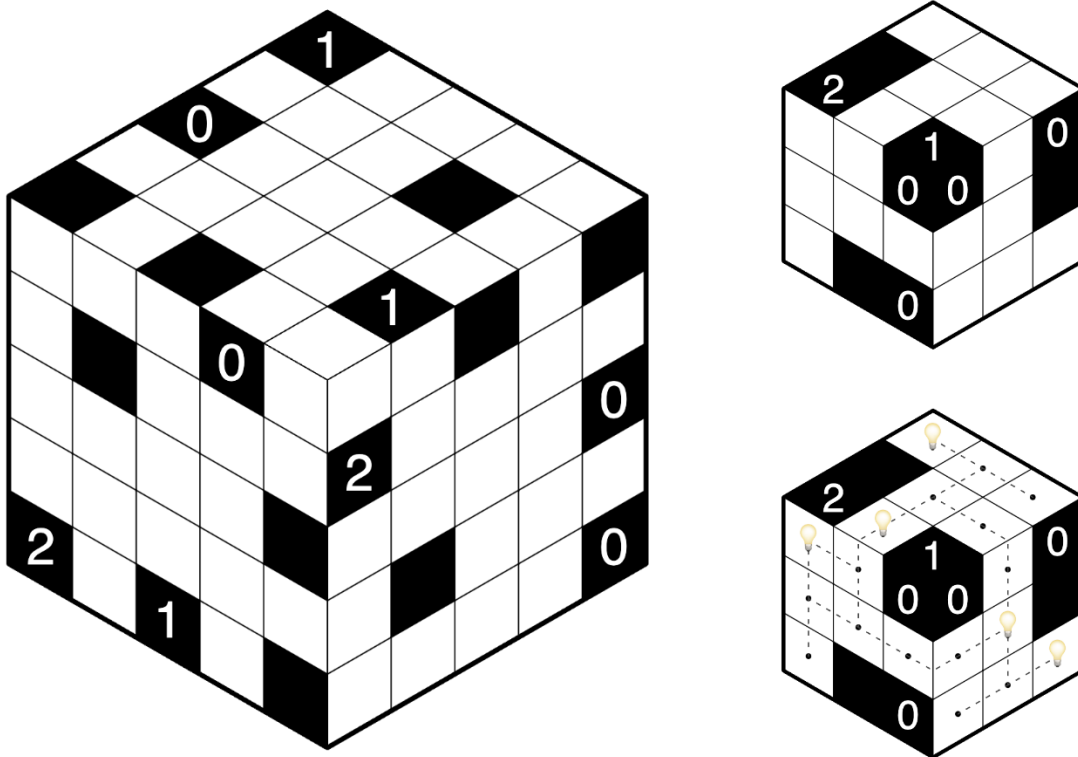
July 28, 2024: Akari (Cube)

Freddie Hand

Sunday GAPP brings no shortage of cursed grids, but sometimes puzzles can even be a bit too evil for even a Sunday. I'm saving these for when we switch to the 8-day week and a 4-author cycle. In the meantime, here is an **Akari (Cube)** that merely violates the laws of physics.

Rules: Place lights in some cells so that every cell is illuminated. Lights illuminate the cell they're in as well as all cells seen in a straight line in any orthogonal direction (with lines "wrapping round" the edges of the cube), not obstructed by a black cell. Lights may not illuminate each other. Clues indicate the number of lights in the (up to) four cells surrounding the clue, i.e. the cells that share an edge with the clue.

(The dotted lines in the example solution indicate which cells each bulb illuminates).



Example (Penpa+): <https://tinyurl.com/2xsd5bv>
Puzzle (Penpa+): <https://tinyurl.com/4b97ksfy>

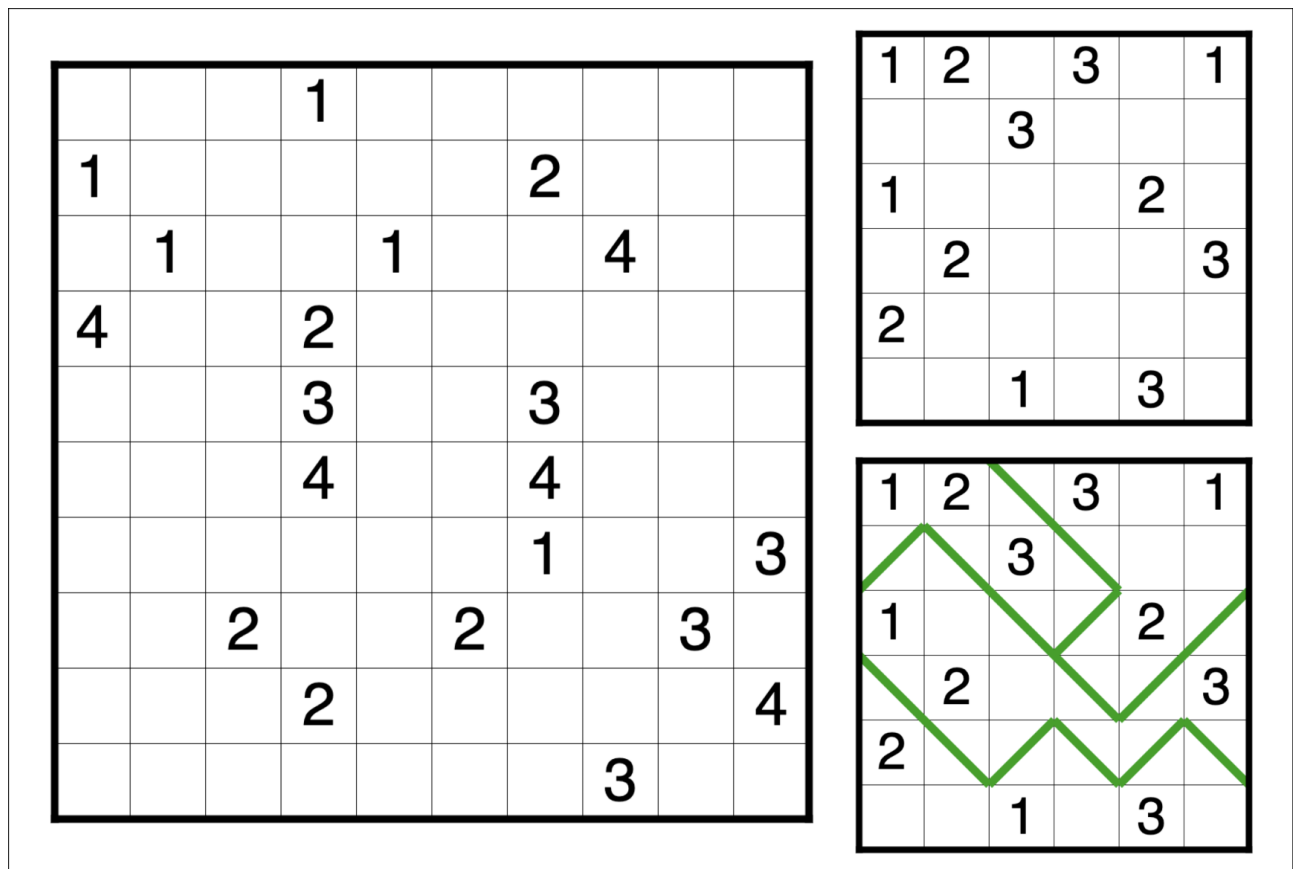
July 29, 2024: Slash Pack

Walker

Today's GAPP is a **Slash Pack**! Not much else to say, have fun!

Rules: Place a diagonal line into some empty cells dividing the grid into regions. Each region must contain every number from 1 to N exactly once, where N is the highest clue value in the grid. Each end of a diagonal line must connect either to the end of at least one other diagonal line or to the grid border (i.e. there can be no 'hanging ends').

Interface Note: You can right click and drag across a diagonal to make an auxiliary marking, which may be useful!



July 30, 2024: Futari / ふたりにしてくれ

Lavaloid

If you know what Hitori means, you'll probably agree that Futari is a natural variant of the puzzle. While that variant exists, we won't be featuring it today. Instead, today's GAPP is a *different* genre named **Futari** (or ふたりにしてくれ)!

Rules: Place exactly one integer from 1 to $N/2$ into each cell such that every row and column contains exactly two of each integer, where N is the side length of the grid. Orthogonally adjacent cells may not contain the same number.

Note: The range is 1 - 4 in the main puzzle, and 1 - 3 in the example puzzle.

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

	1		2		
				1	
		2			
2					
			3		

1	3	2	1	2	3
2	1	3	2	3	1
3	2	1	3	1	2
1	3	2	1	2	3
2	1	3	2	3	1
3	2	1	3	1	2

Example (Penpa+): <https://tinyurl.com/27mp6z7f>
Example (Sudokupad): <https://tinyurl.com/mr2yzz7h>
Puzzle (Penpa+): <https://tinyurl.com/27qqpkry>
Puzzle (Sudokupad): <https://tinyurl.com/yckf2f2e>

July 31, 2024: Nurikabe-Like Loop

bakpao

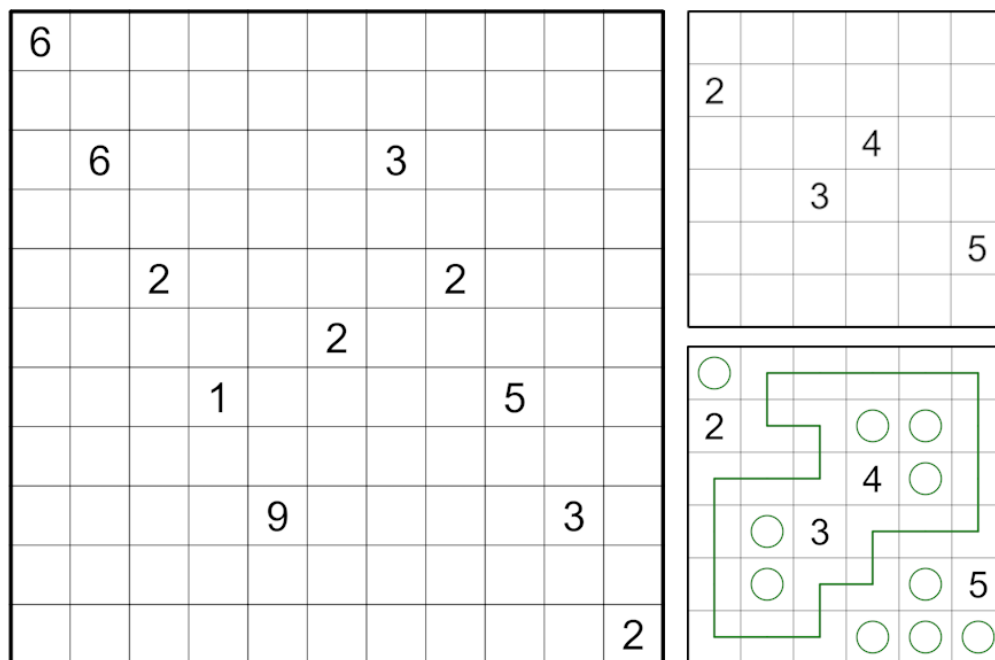
A couple of topics to address today:

- It's almost August time again! Starting **today** and throughout the entire month of August, you'll be able to earn bonus otters for correctly guessing the next day's genre again! 🙄🦦
- I mentioned last time I was working on another version of the GAPP1K puzzle, to celebrate 100 posts on my personal blog. I thought it would take a while to finish, but surprise - it's already done! I'll post it on my blog As Soon As I Can™. I'll let you guys know when it's live, which should be in a few hours at most. 🙄🙄🙄

Today's puzzle is a **Nurikabe-Like Loop**!

Rules: Draw a non-intersecting loop through the centers of some empty cells. Every orthogonally connected area of cells not visited by the loop contains exactly one clue, the value of which represents the size of the area.

Interface note 🖥️: I've preselected the composite Line/OX mode for this puzzle, where the circles/crosses can be useful to keep track of the sizes of areas the loop doesn't visit. If you prefer solving with crossmarks on cell edges to indicate where the loop can't go, you can switch to composite mode Line/X instead.



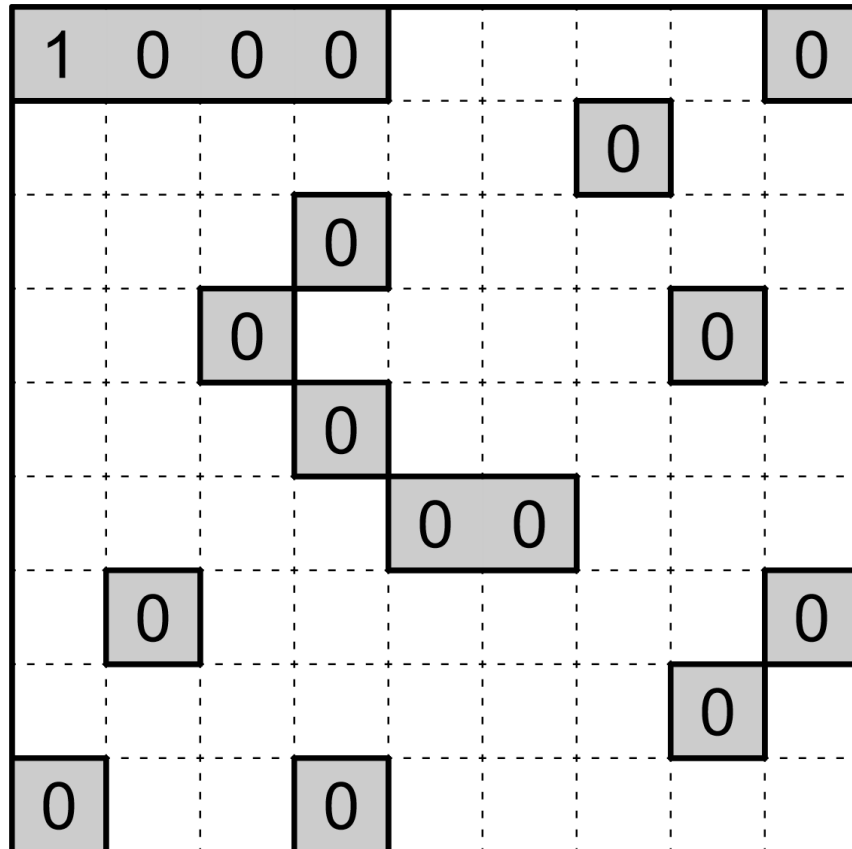
Example (Penpa+) by Tyrgannus: <https://tinyurl.com/4j7u2x6x>

Main puzzle (Penpa+): <https://tinyurl.com/23xncelr>

Bonus 1: Grandstands

Menderbug

Rules: Draw a non-intersecting loop through the centres of some empty cells. Number clues indicate the total length of straight line segments which start in a cell orthogonally adjacent to the clue and extend away from the clue.



Example (Kudamono): <https://tinyurl.com/c64a97fh>

Example (Penpa+): <http://tinyurl.com/ysfzmgr3>

Bonus (Kudamono): <https://tinyurl.com/ywy6v3cy>

Bonus (Penpa+): <https://tinyurl.com/2ya4bb3s>

Bonus 2: Heyablock

Menderbug

Rules: Shade a single group of orthogonally connected cells in each region so that the remaining unshaded cells form one orthogonally connected area. Shaded groups may not share a bold border. Regions with numbers must contain the indicated amount of shaded cells. Unclued regions must contain at least one shaded cell. A line of consecutive unshaded cells may not cross more than one bold border.

1		1		1					
								2	
		3		3				2	
								2	
4				0				2	

Example (puzz.link): <https://tinyurl.com/4emt7thh>

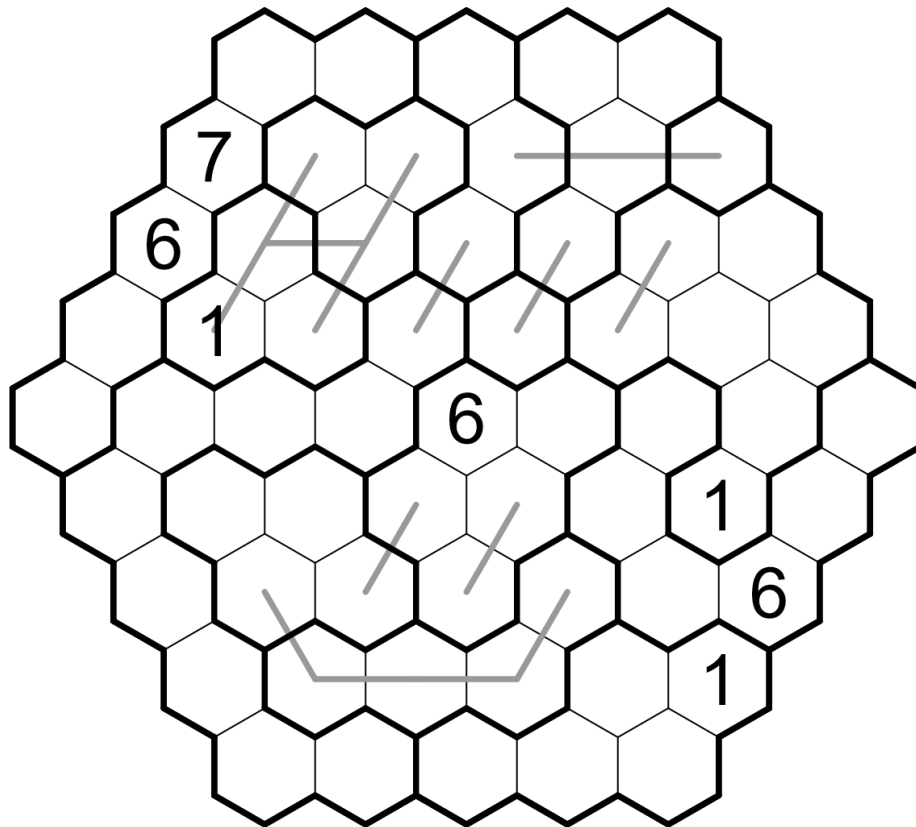
Bonus (puzz.link): <https://tinyurl.com/45369ky3>

Bonus 3: Honey Dozen

Lavaloid

Rules:

- Place exactly one of the digits 1-9 into every cell. Some digits may already be given.
- Numbers in each region separated by bold borders must form an orthogonally connected chain of strictly increasing consecutive numbers. (In other words, there must be a path from the lowest number in the region to the highest, increasing only by 1 every cell.)
- Adjacent cells must not contain the same number, even across region borders.
- Numbers along each group of cells connected by lines must add to 12.



Example (Kudamono) by ふーなんとかさん: <https://tinyurl.com/rsdy8asc>

Example (Penpa+): <https://tinyurl.com/2xl9dh26>

Bonus (Kudamono): <https://tinyurl.com/3nw99efn>

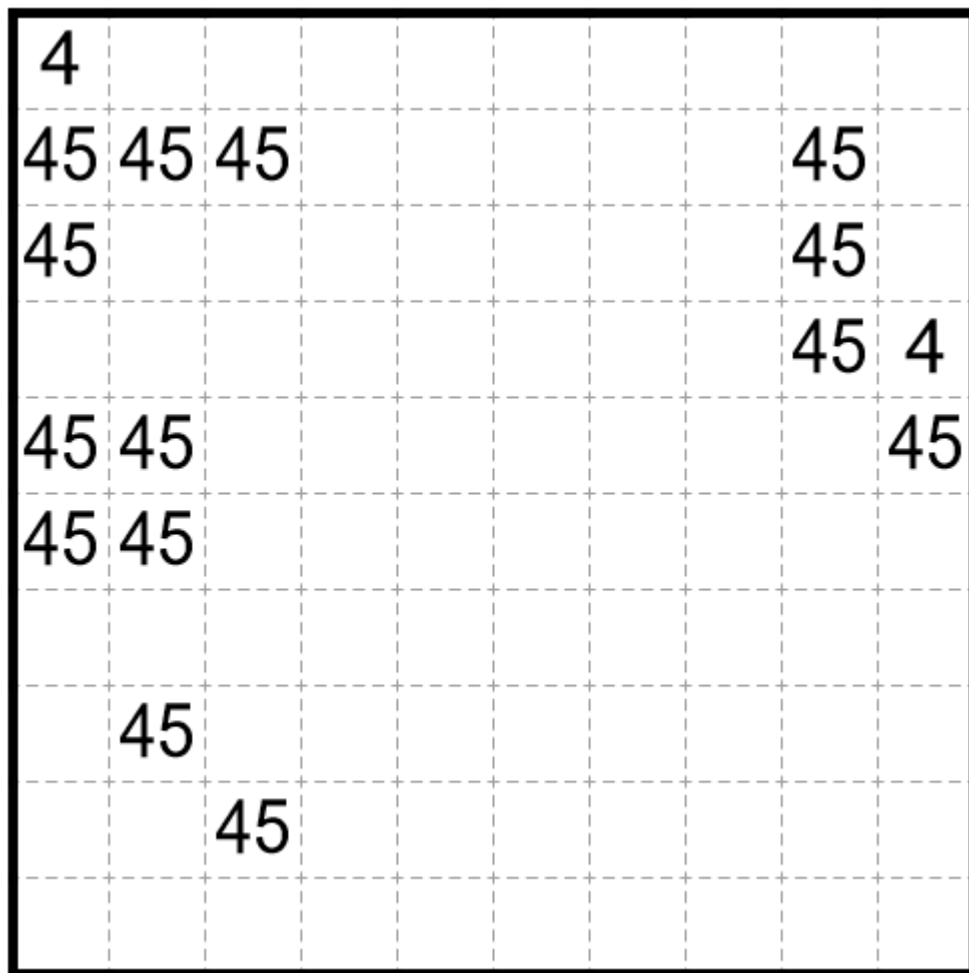
Bonus (Penpa+): <https://tinyurl.com/25aj6shf>

Bonus 4: Subomino

Freddie Hand

Rules: Divide the grid into regions of orthogonally connected cells. Number clues indicate the size of the region they are contained in. A region can contain one or more numbers, or none at all. When two regions share a border, it must not be possible to fit one region entirely into the other region (*without changing the region's orientation or size*).

Shaded cells are not part of any region (there are none in these puzzles).



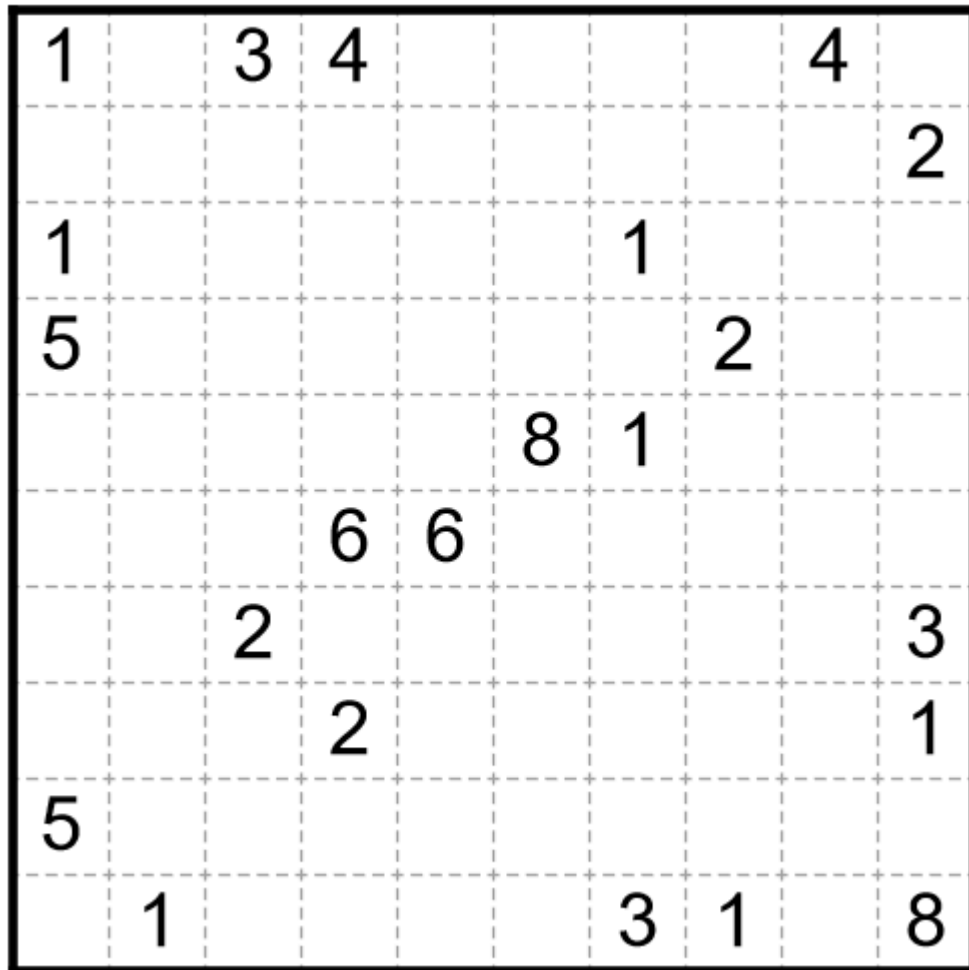
Example (puzz.link): <https://tinyurl.com/33uevc99>

Bonus (puzz.link): <https://tinyurl.com/3kwn3kct>

Bonus 5: Symmetry Area

Walker

Rules: Divide the grid into regions of orthogonally connected cells. All regions must have 180° rotational symmetry. Two regions of the same size may not share an edge. Clued cells must belong to a region containing the indicated number of cells.



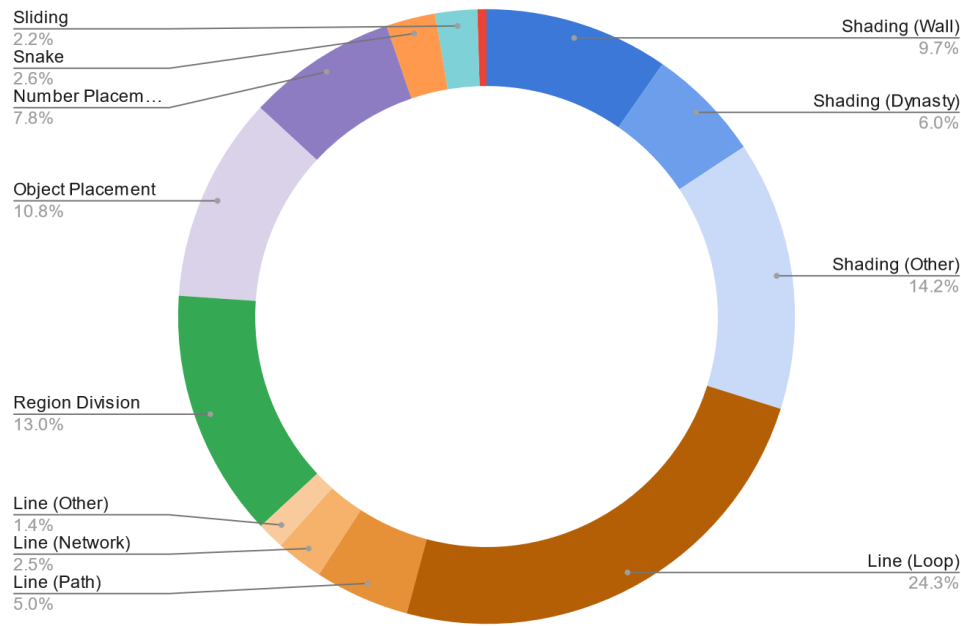
Example (puzz.link) by Freddie: <https://tinyurl.com/4f2e8wvn>

Bonus (puzz.link): <https://tinyurl.com/yfnxbrdy>

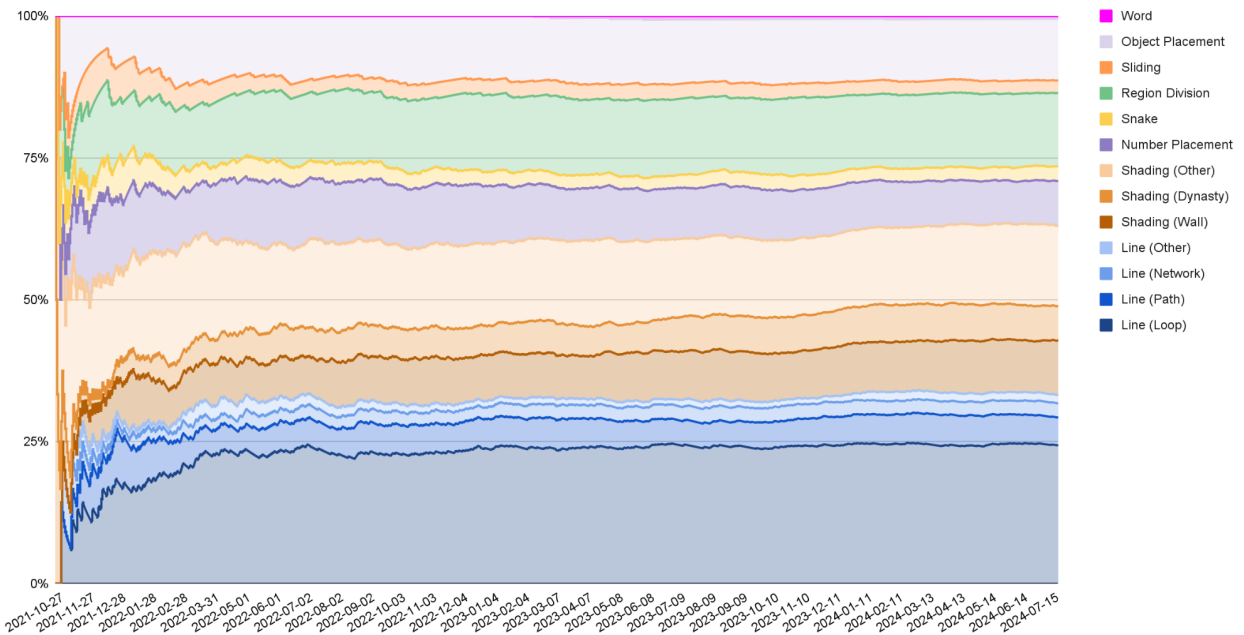
Date	Sloth Time	Crab Time	
01 Jul 2024	0:03:30	0:07:00	Stuttgart Stubtail
02 Jul 2024	0:02:45	0:06:15	Incontinent Inca Wren
03 Jul 2024	0:01:45	0:03:30	Blustery Blue Petrel
04 Jul 2024	0:03:21	0:06:54	Starling
05 Jul 2024	0:02:30	0:05:00	Nilgiri Pipit
06 Jul 2024	0:02:30	0:05:00	Sheepish Blackbird
07 Jul 2024	0:01:45	0:03:45	Filling Fiji Goshawk
08 Jul 2024	0:01:30	0:03:00	Rectangle Wren
09 Jul 2024	0:02:50	0:06:00	Qzpv Qoique
10 Jul 2024	0:03:00	0:06:00	Perceptive Po'o-uli
11 Jul 2024	0:02:30	0:05:00	Lilian's Li'l Lovebird
12 Jul 2024	0:02:30	0:05:15	Discontinuous Dolphin Gull
13 Jul 2024	0:05:00	0:09:00	Hubble Skymap Starling
14 Jul 2024	0:03:00	0:06:30	Expensive Emu
15 Jul 2024	0:03:00	0:06:00	Helmeted Manakin
16 Jul 2024	0:02:30	0:05:00	Silverstone Silverbill
17 Jul 2024	0:03:15	0:06:30	Somniloquous Smew
18 Jul 2024	0:03:15	0:05:45	Pangaea Pangani Longclaw
19 Jul 2024	0:03:33	0:07:30	Starling?
20 Jul 2024	0:06:00	0:12:00	Strawberry Spot-Throat
21 Jul 2024	0:03:33	0:06:66 0:07:06	Dorito Doradito
22 Jul 2024	1.000 hour	1,000 minutes	One Thousand Paper Cranes
23 Jul 2024	0:01:30	0:03:00	Wrelaxing Wren
24 Jul 2024	0:02:00	0:03:30	Upkeep Cuckoo
25 Jul 2024	0:02:10	0:04:32	Apologetic Apolo Cotinga
26 Jul 2024	0:02:30	0:05:00	Pointy Puaiohi
27 Jul 2024	0:05:00	0:10:00	Heyaflock Bronzewing
28 Jul 2024	0:02:00	0:04:00	Wrelativity Wren
29 Jul 2024	0:02:30	0:04:30	Slash Woodpecker
30 Jul 2024	0:04:00	0:08:00	Pair of Greater Bird-of-Paradise
31 Jul 2024	0:03:00	0:06:00	Guessy August Guaiabero

Appendix 1: More Stats!

Popularity of genre categories

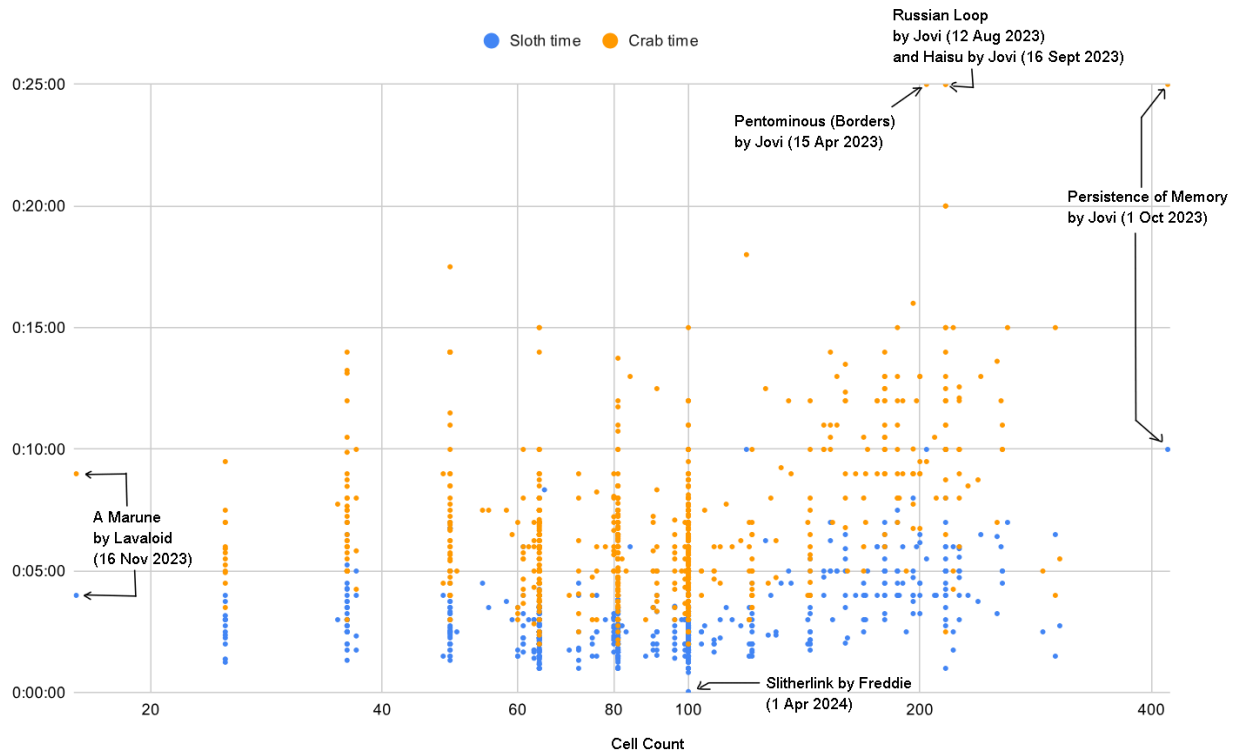


And how popular they are over time:



Sloth/crab time distribution

This is a plot of the time standards of every puzzle against the cell count. Log scale has been used for the cell count as puzzles with >300 cells are extremely rare. Some interesting outliers have been labeled.



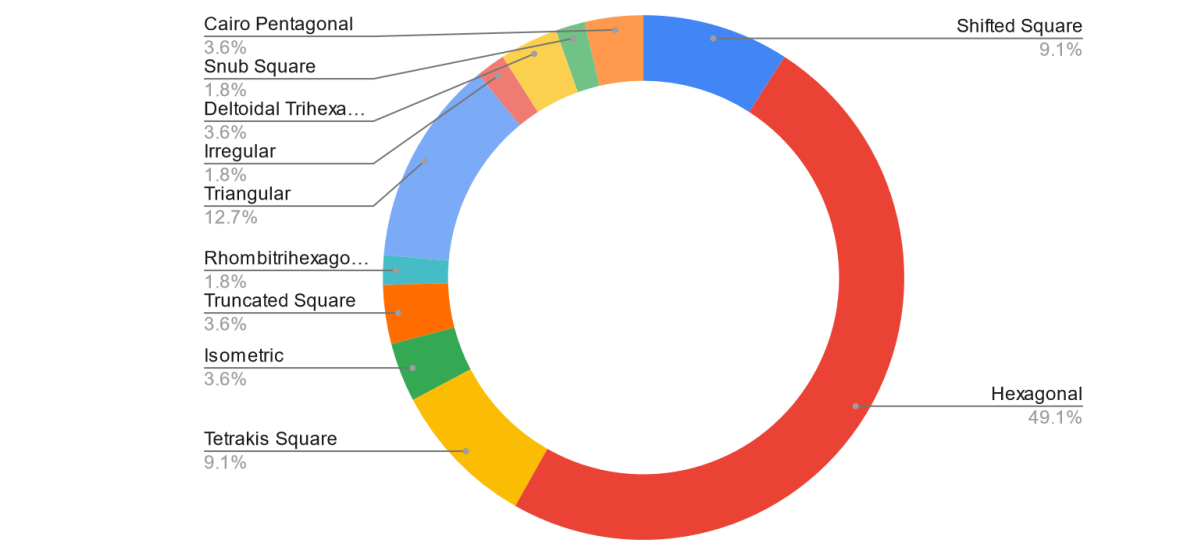
To reveal more details, some extreme data points have been removed:

- GAPP 1st anniversary (27 Oct 2022) -- time: 1 year/2 years
- GAPP 500 (10 Mar 2023) -- time: 500 seconds/500 minutes
- GAPP 2nd anniversary (27 Oct 2023) -- time: 1 year/2 years
- GAPP 1000 (22 Jul 2024) -- time: 1 hour/1000 minutes, cell count: 1000

Most of the vertical clusters are square grids: all square numbers $5^2 (= 25)$ to $12^2 (= 144)$ are visible on the graph. Vertical lines above 144 are common Supersized grid sizes: 160, 180, 216, 225.

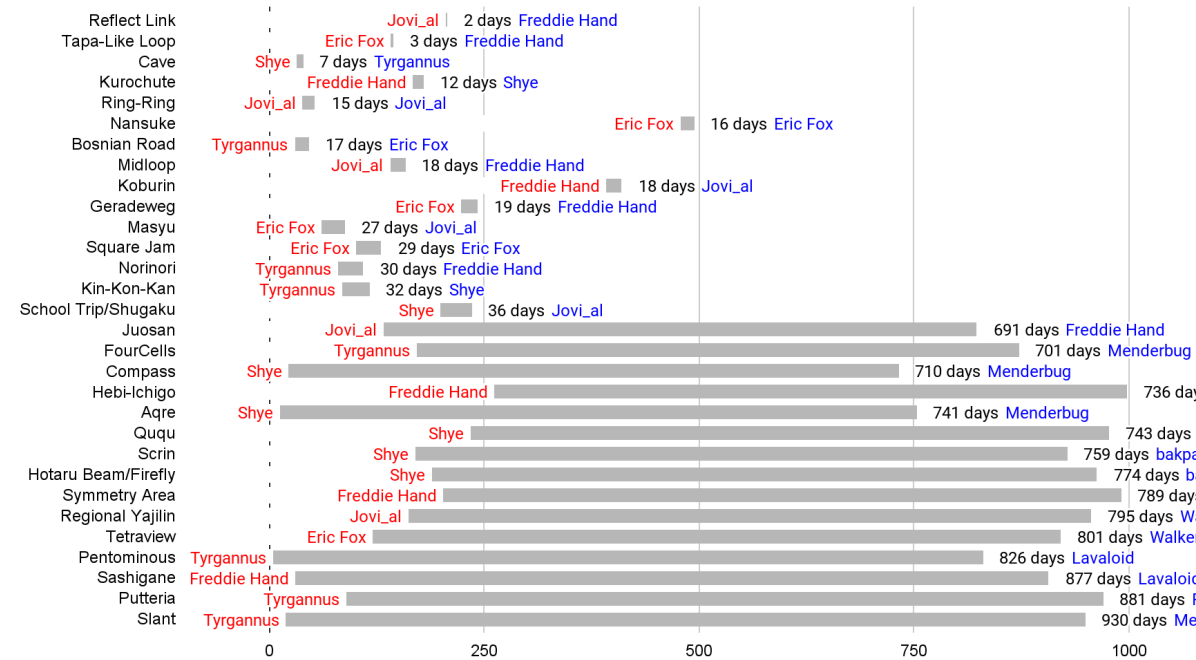
Popularity of non-square cells

Square cells are by far the most popular, with 983 entries (94.7% of all entries). Here are the popularity of every other grid type.



Turnaround time from first feature to first supersized

Only the 15 fastest and slowest are shown.



Appendix 2: Pentopia (10 Jul) GAPP 101

Since pentominoes cannot touch each other even diagonally, if you shade the cells directly in front of a clue with 'adjacent' arrows, the shaded cells must connect to each other to avoid different pentominoes touching (see the image).

This is especially useful for clues with 3 arrows, because shading any adjacent cell of a 3-arrow clue always forces a U pentomino. If the U pentomino is already placed and there are more 3-arrow clues in the grid, you know the cells directly adjacent to those 3-arrow clues must be unshaded!

