

GAS Leak

Genuinely Approachable Sudoku
from the CtC Discord

Volume 38:

March 1 – March 31, 2024

Welcome to March!

We got a full month of GAS puzzles for you, one better than the other. Also this month we could celebrate 1000 days of GAS. We also have a few other days with more than one puzzle, some never before or rarely used variants, a thermo with the lowest known number of thermos and much much more.

Have fun solving!

Engy

March 1, 2024: Best Left

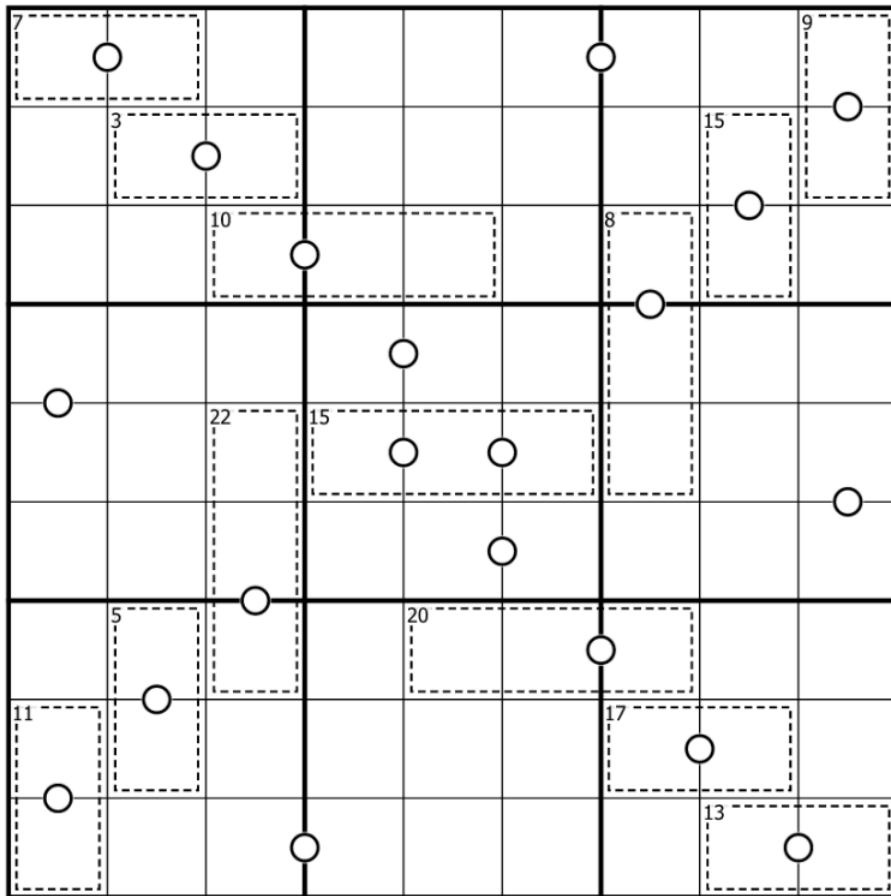
Bill Murphy

Walkthrough for Second First Impressions Sudoku: <https://youtu.be/ENAO0YodGVw>

Sorry to anyone who got confused by Natural Anthem in the bonus pack, that was intended for Patreon! It's not GAS at all, but it definitely says something about Philip that he thought it was. (It's an homage to Shye's classic sudoku Fireworks technique that I assume someone will put in the chat)

Today's **GAS** is a **Difference Killer Sudoku**!

Normal sudoku rules apply. Digits separated by a white dot must be consecutive. Digits in cages must not repeat and must sum to the small corner total.



Sudokupad: <https://sudokupad.app/bunqtnv986>

March 2, 2024: GAS 1000 (six 6x6 puzzles/double sized „GAS Who“)

Philip Newman, clover! and Bill Murphy

Walkthrough of "Best Left" by Bill:

<https://youtu.be/WLcPLH9wWnM>

Bonus Walkthrough of the 7 Sudoku from the Leap Day pack (including the very much not GAS Bill puzzle that I included by mistake):

<https://youtu.be/imcdVEQ4CSM>

🎉 Today is **GAS 1000!** 🎉 Thanks to everyone who solves these puzzles; we like making puzzles anyway, but we are extremely grateful for the lovely community that has built up around GAS. Hats off to you!

To celebrate GAS 1000, we've decided to do a special **Double Sized** edition of **GAS Who!** It's a 6x6x6 of puzzly goodness, and you have the opportunity to earn some bonus hats for correctly identifying the setter of each!

Normal **6x6** sudoku rules apply for all puzzles — Place a digit in each cell such that each row, column, and outlined region contains each digit from 1-6 exactly once.

See the links below for additional rules for each puzzle! I'm out of room in this intro!

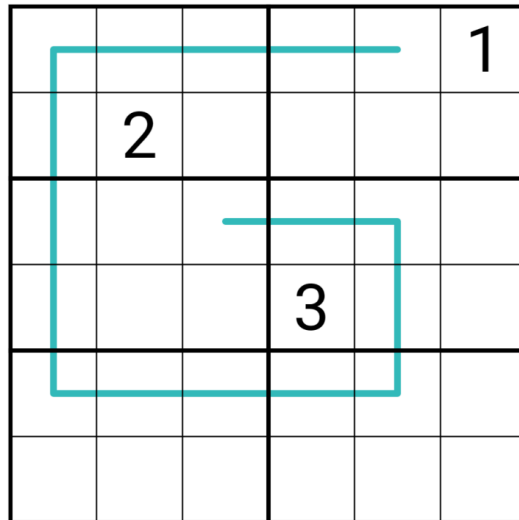
Earn one bonus hat 🧢 for guessing who set each of the first three puzzles (G, A, S); earn one bonus hat 🧢 for guessing who set each of the last three puzzles (1000, 1K, Eintausend). Earn one additional bonus hat 🎓 for correctly guessing who set all six!

⇓⇓ (The puzzles are on the next pages) ⇓⇓

G [Modular Lines]

Normal 6x6 sudoku rules apply.

Modular Lines: Along lines, each set of three cells must contain one digit equivalent to 0 mod 3 (3, 6), one digit equivalent to 1 mod 3 (1, 4), and one digit equivalent to 2 mod 3 (2, 5). (For example, a line could contain 264534 but not 264536, because 536 does not contain a digit equivalent to 1 mod 3.)

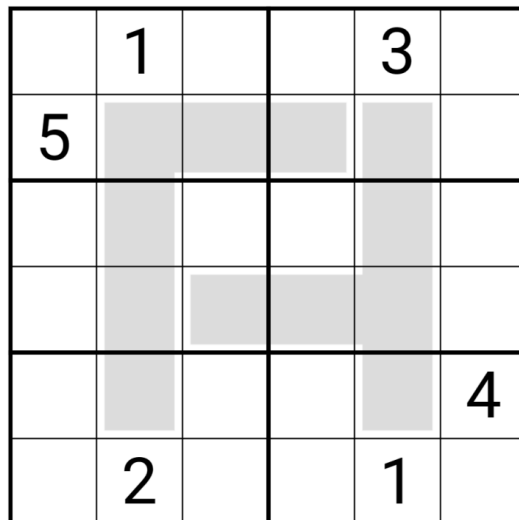


Play on SudokuPad: <https://sudokupad.app/gas-who/20240302-g>

A [Extra Regions]

Normal 6x6 sudoku rules apply.

Extra Regions: The shaded regions must contain each digit from 1 to 6 exactly once.



Play on SudokuPad: <https://sudokupad.app/gas-who/20240302-a>

⇓ ⇓ (The puzzles continue on the next page) ⇓ ⇓

S [Scattered Sums]

Normal 6x6 sudoku rules apply.

Scattered Sums: Clues outside the grid give the sum of the shaded cells in that row or column.

		6	11	15	5	
11						
4						
7						
10						

Play on SudokuPad: <https://sudokupad.app/gas-who/20240302-s>

1000 [Renban]

Normal 6x6 sudoku rules apply.

Renban: Digits along lines must form a non-repeating consecutive set, in any order. (For example, a 4-cell renban line could be 4352, but not 5631 or 2312.)

					1
	5			6	
		3			
			4		
	6			5	
5					3

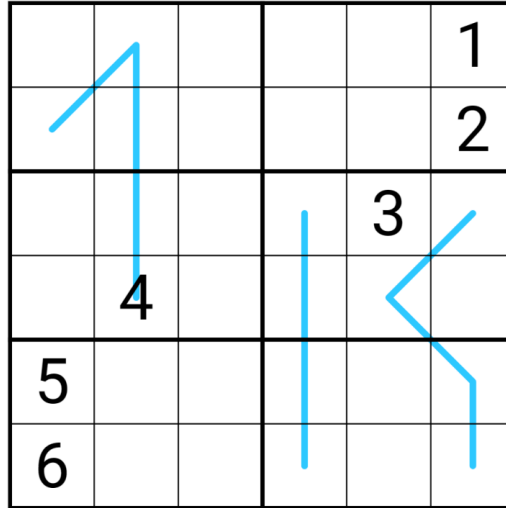
Play on SudokuPad: <https://sudokupad.app/gas-who/20240302-1000>

⇓ ⇓ (The puzzles continue on the next page) ⇓ ⇓

1K [Region Sum Lines]

Normal 6x6 sudoku rules apply.

Region Sum Lines: Along each line, the digits in every region it passes through have the same sum. For example, $r2c1 + r1c2 + r2c2 = r3c2 + r4c2$.

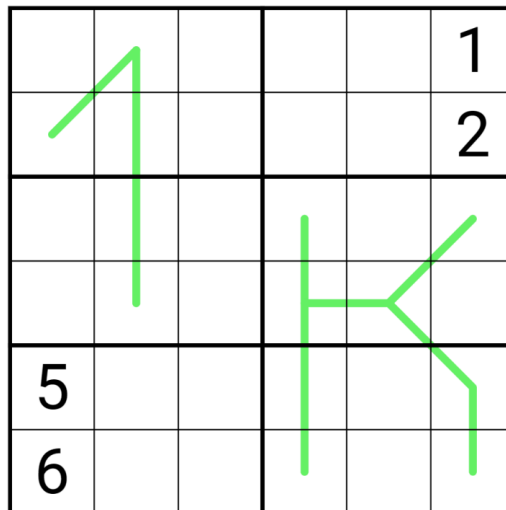


Play on SudokuPad: <https://sudokupad.app/gas-who/20240302-1k>

Eintausend [6x6 Whispers]

Normal 6x6 sudoku rules apply.

Whispers: Digits in cells directly connected by a line must differ by at least 3.



Play on SudokuPad: <https://sudokupad.app/gas-who/20240302-tausend>

March 3, 2024: Sequence Brick

Philip Newman

Walkthrough of the 6 Sudoku from GAS Who:

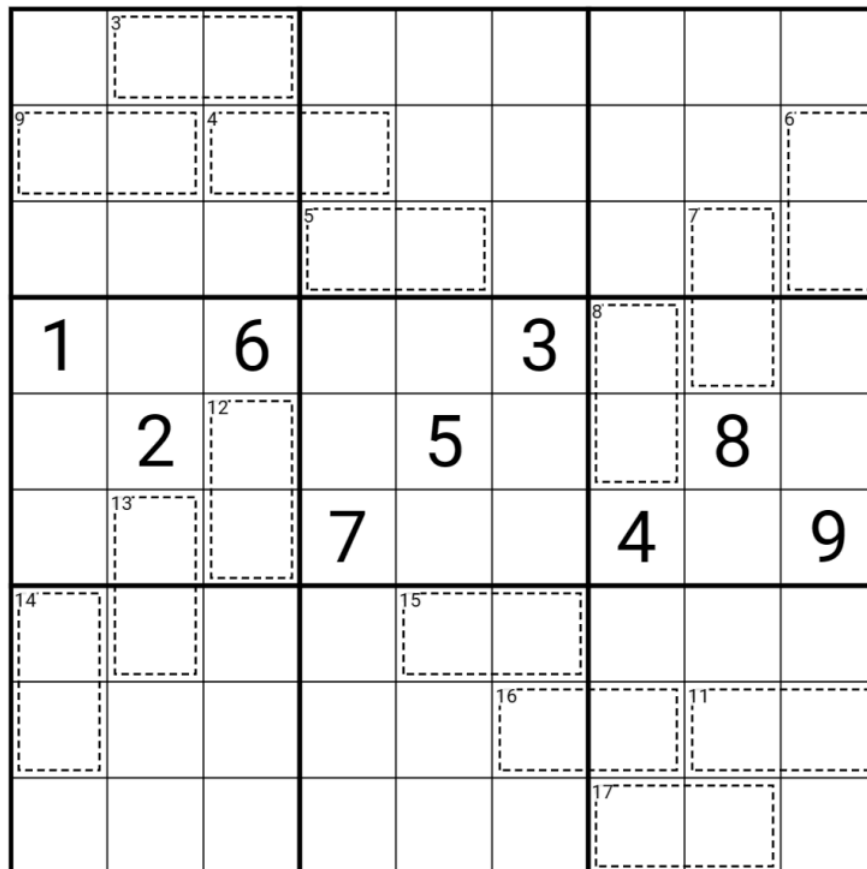
<https://youtu.be/CTkivrZeJjl>

Shoutout to @DreamLibrarian and @sararielle 🐲B2 🧨1B4 🎩1A2 🐦11 🦀4F 🐼29 who have been dealing with our multi-puzzle nonsense in the GAS trackers. If you want to keep track of your hats and progress, check out the trackers in the pins!

We're back to normal **GAS** today, with a very Philip **Killer Sudoku**.

Normal sudoku rules apply.

Killer: Digits in cages cannot repeat and must sum to the total given.



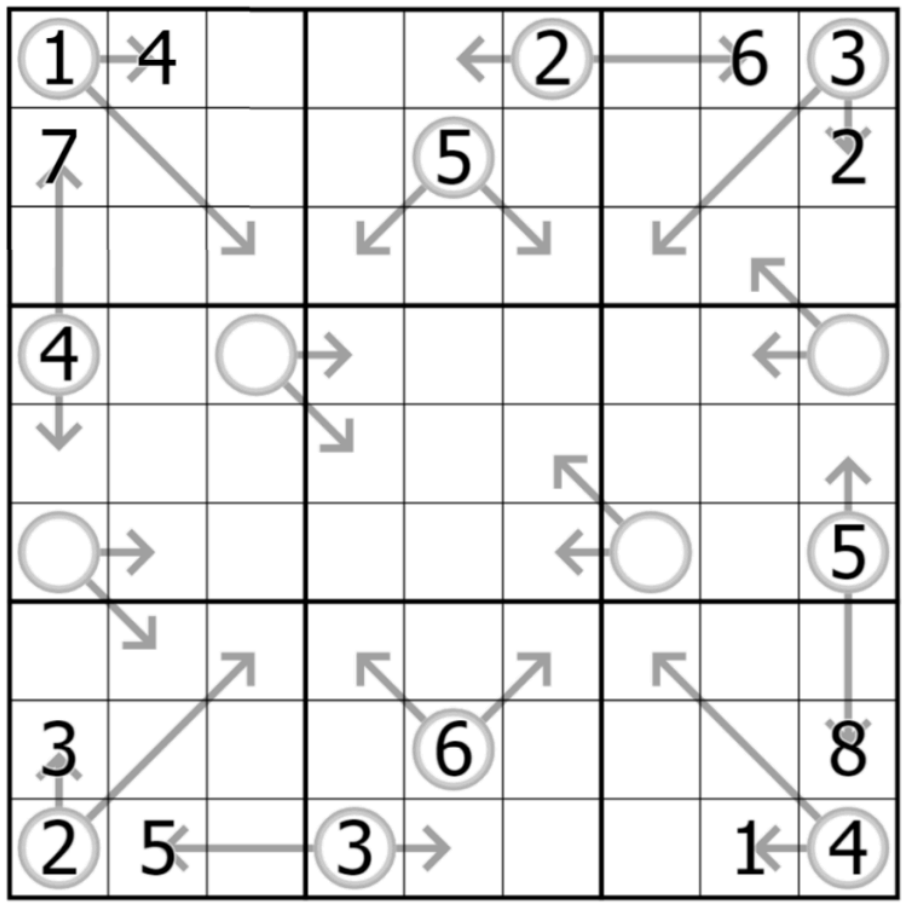
Play on f-puzzles: <https://f-puzzles.com/?id=ypcsnm2p>

Play on SudokuPad: <https://sudokuapp.com/philip-newman/20240303-sequence-brick>

March 4, 2024: Difference Arrow
 clover!

Walkthrough for Philip's 'Sequence Brick': <https://www.youtube.com/watch?v=Yzzsszri1-4>

Today's GAS is different from arrow sudoku - specifically, it's a **difference arrow sudoku**. Normal sudoku rules apply. Also, there are some pairs of arrows in the grid, each connected to the same circle. The digit in the circle tells you the **difference** between the sum along one arrow, and the sum along the other arrow. For instance, r4c9 is the difference between r3c8 and r4c8, and r1c1 is the difference between r1c2 and r2c2+r3c3.



SudokuPad: <https://sudokupad.app/i76aorvv9r>

March 5, 2024: Bug Like An Angel

Bill Murphy

Walkthrough for Difference Arrows: <https://youtu.be/IO7BGKSXuyE>

Made a student beam with pride today when I saw their They/Them pronoun badge and asked, "Oh are your pronouns they/them because you don't miss?"

Like that joke, today's GAS is a *Killer Sudoku*!

Normal Sudoku Rules Apply. Digits in cages must sum to the given total.

	3	11		15		12		
		16	8		15		9	
	7					7		
		13					13	
	11				12	4		
		5					17	
	8		5		9			

<https://sudokupad.app/8hbpoaz3k2>

March 6, 2024: Sequence Snake/Sure I Can (two puzzles)

Philip Newman

Walkthrough of "Bug Like An Angel" by Bill:

<https://youtu.be/xeegxJOv9KI>

You know how Bill likes to post two **Classic Sudoku** at a time for **GAS**?

What if I did that? 😊

Normal sudoku rules apply. And that's it!

[Note from typesetter: The times in the table at the end are for both puzzles combined]

Sequence Snake

1	2				7	8		
	3	4				9	1	
		5	6				2	3
5			7	8				4
6	7			9	1			
	8	9			2	3		
		1	2			4	5	
			3	4			6	7
				5	6			8

Play on f-puzzles: <https://f-puzzles.com/?id=22wxsgn3>

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240306-sequence-snake>

⇓ ⇓ (The other puzzle is on the next page) ⇓ ⇓

Sure I Can

8							6	5
9			1					
		1		5	6	2		
		7	3				2	
		6		1		4		
	4				2	5		
		4	9	8		3		
					3			7
7	8							6

Play on f-puzzles: <https://f-puzzles.com/?id=27z7lsvo>

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240306-sure-i-can>

March 7, 2024: Fortress

clover!

Walkthrough for Philip's 'Sequence Snake' and 'Sure I Can':

<https://www.youtube.com/watch?v=lim2M3MuQEY>

Italy has the largest number of castles of any country, with approximately 45,000 - a density of one castle every six square kilometers. Thus, we expect Italian solvers to handle this **fortress sudoku** with particular aplomb.

Normal sudoku rules apply. Also, digits in gray cells are greater than all digits in orthogonally adjacent white cells.

7	<	>		8		<	>	5
^	>	1				3	<	^
>	3	5				8	1	<
			<	>	6			
3								7
			7	<	>			
^	>	1	6			7	3	<
>	^	3				1	<	^
5	<	^		7		<	^	>

SudokuPad: <https://sudokupad.app/a9go0h1gqi>

March 8, 2024: Snowglobes/Concorde (two puzzles)
Bill Murphy

Walkthrough for Fortress: <https://youtu.be/50edsDZe0RA>

I have set three puzzles for GAS in the last month and have been gently burning through my backlog! The stress of teaching is so real, and just...I'm very glad to be reaching the end even if one of the sweetest students looked me in the face yesterday and told me I had to stay until they were in their final years so they could take my Chemistry Class (they don't know yet)

Anyway, two classic sudoku! (I nearly posted three, just to one up philip)

Put the digits 1-9 in each box, row and column.

[Note from typesetter: The times in the table at the end are for both puzzles combined]

	5	6					9	3
1		7	8					
2	3							
	4		7			2		
				1				
		8			3		6	
							7	8
					2	3		9
7	1					4	5	

Snowglobes: <https://sudokupad.app/stt67c1ue>

⇓ ⇓ (The other puzzle is on the next page) ⇓ ⇓

		1		2	3			5
		4	5		6	7		
6			8	9		1		
	2							
5								1
							7	
		5		6	7			9
		8	9		1	2		
1			3	4		5		

Concorde: <https://sudokupad.app/hhw00lb3e2>

March 9, 2024: A Classish Snipe

Philip Newman

Walkthrough of "Snowglobes" and "Concorde" by Bill:

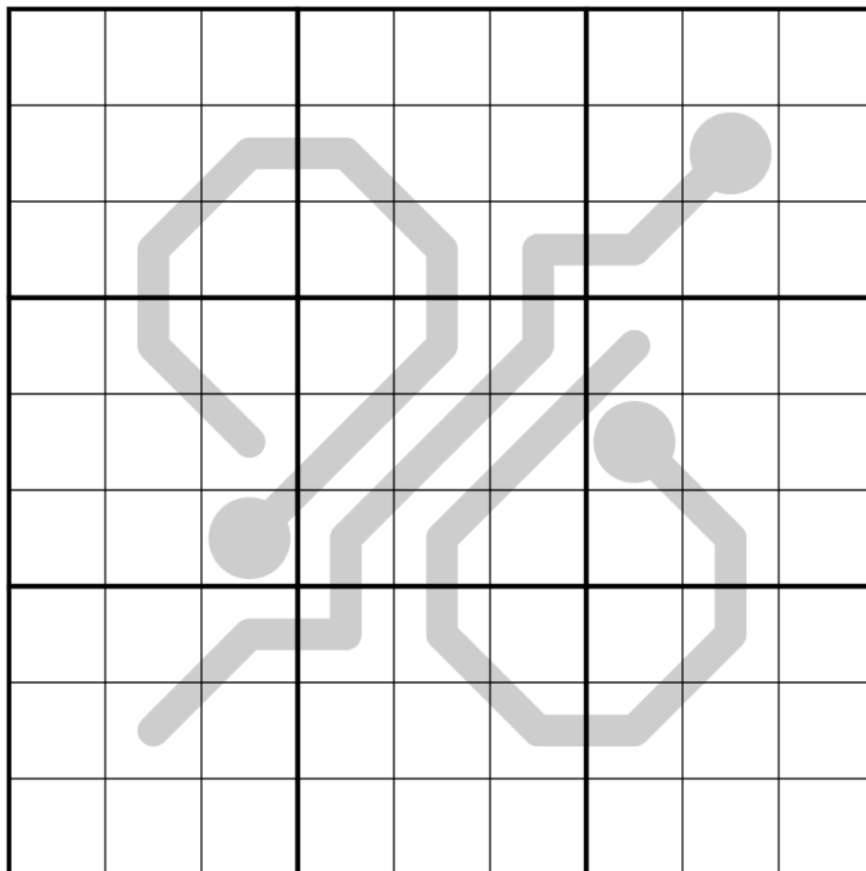
https://youtu.be/qDhp2_f4PZM

Today's **GAS** is a **Thermo Sudoku** and it has the fewest possible thermos for a unique sudoku (as far as we know). Interested in other minimums? Well, do I have the bonus video for you:

<https://youtu.be/pKFaqS5qbrk>

Normal sudoku rules apply.

Thermo: Digits along thermometers must strictly increase from bulb to tip.



A Classish Snipe

Play on f-puzzles: <https://f-puzzles.com/?id=26kyk6jw>

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240309-a-classish-snipe-v2>

March 10, 2024: Palindrome
clover!

Walkthrough for Philip's "A Classish Snipe": <https://www.youtube.com/watch?v=fOVAdGcTF5E>

The classic type of palindrome is technically called a "character-unit palindrome": when reading the word, phrase, or sentence backwards, one character at a time, it spells the same thing. But let's take a moment to appreciate the lesser-known "word-unit palindromes": phrases, sentences, or even entire poems that read the same when read backwards word by word.

In other words:

King, are you glad you are king? 🏰

Today's GAS is a (number-unit) **palindrome sudoku**! Normal sudoku rules apply. Also, each gray line is a palindrome: the digits along it read the same in both directions.

			6	4				
			5					
2	3							
1			8		9			4
							9	6
					1			
				8	6			

SudokuPad: <https://sudokupad.app/clover/march-10-2024-palindrome>

March 11, 2024: Fog Killer

Bill Murphy

Walkthrough for Palindrome: https://youtu.be/_F0l8wTbBAY

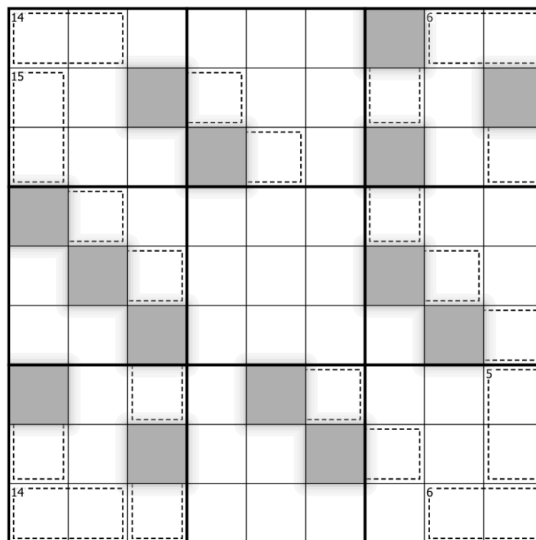
Held out for as long as I could, but you know what they say
THEFOGISCOMINGTHEFOGISCOMINGTHEFOGISCOMINGTHEFOGISCOMINGTHEFOGISC
COMINGTHEFOGISCOMINGTHEFOGISCOMINGTHEFOGISCOMINGTHEFOGISCOMINGTHE
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Today's GAS is a **Fog Killer** Sudoku!

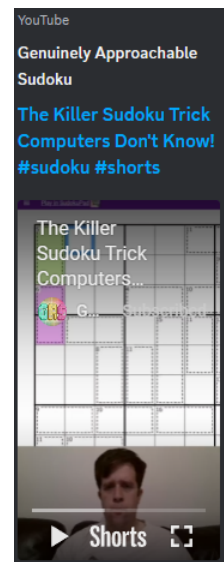
Normal Sudoku Rules Apply. Digits in cages must sum to the given total. Correct digits places will lift the fog across some cells in the grid.

Been advised this one's gonna be a little tricky, so times are longer. If you're not sure about the neat 14/15 or 5/6 cage trick, I did a video a while back
<https://youtube.com/shorts/UYHHMhKjYAw> (also there's a secret not-gas killer in the comments for that one)

[Note from typesetter: Unfortunately printing technique is not far enough advanced to make it solvable here. You have to use the link provided. It's worth it!]



Sudokupad: <https://sudokupad.app/ss3czxav1o>



March 12, 2024: Collisions

Philip Newman

Walkthrough of "Fog Killer" by Bill:

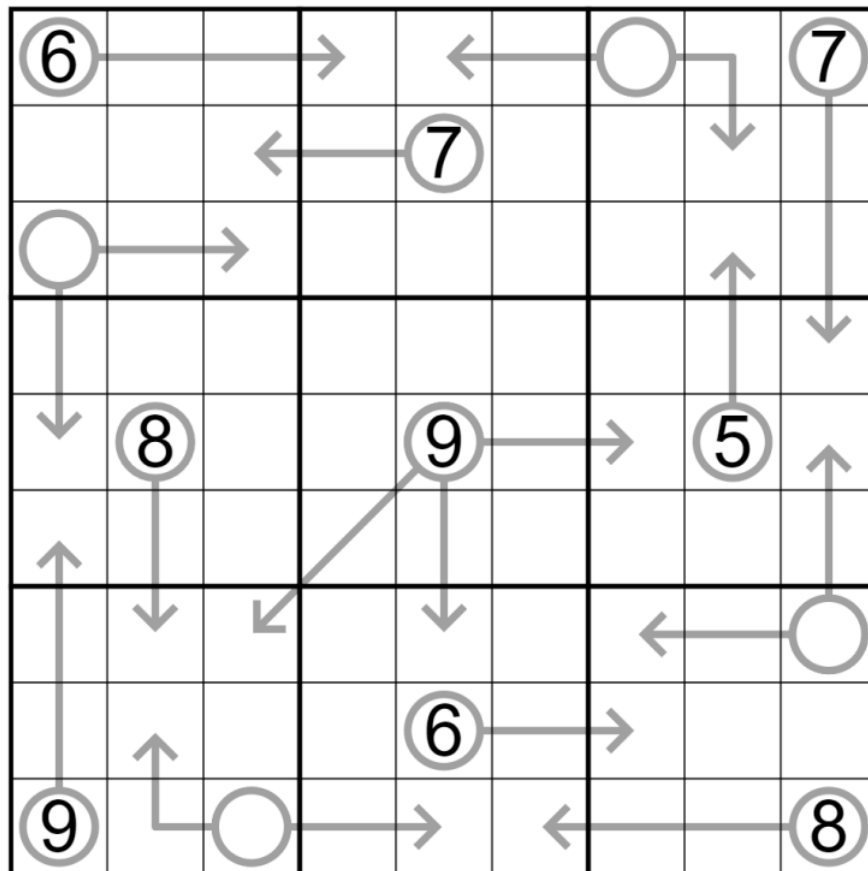
<https://youtu.be/c0CY9HZkpnI>

Speaking of fog, my brain right now.

Thanks to @Jasen B and @DiMono for stepping in to test today's puzzle! This one slipped through the testing cracks last night, my bad for not having it ready sooner.

Normal sudoku rules apply.

Arrow: Digits along arrows must sum to the circled total.



Play on f-puzzles: <https://f-puzzles.com/?id=2cggd9xs>

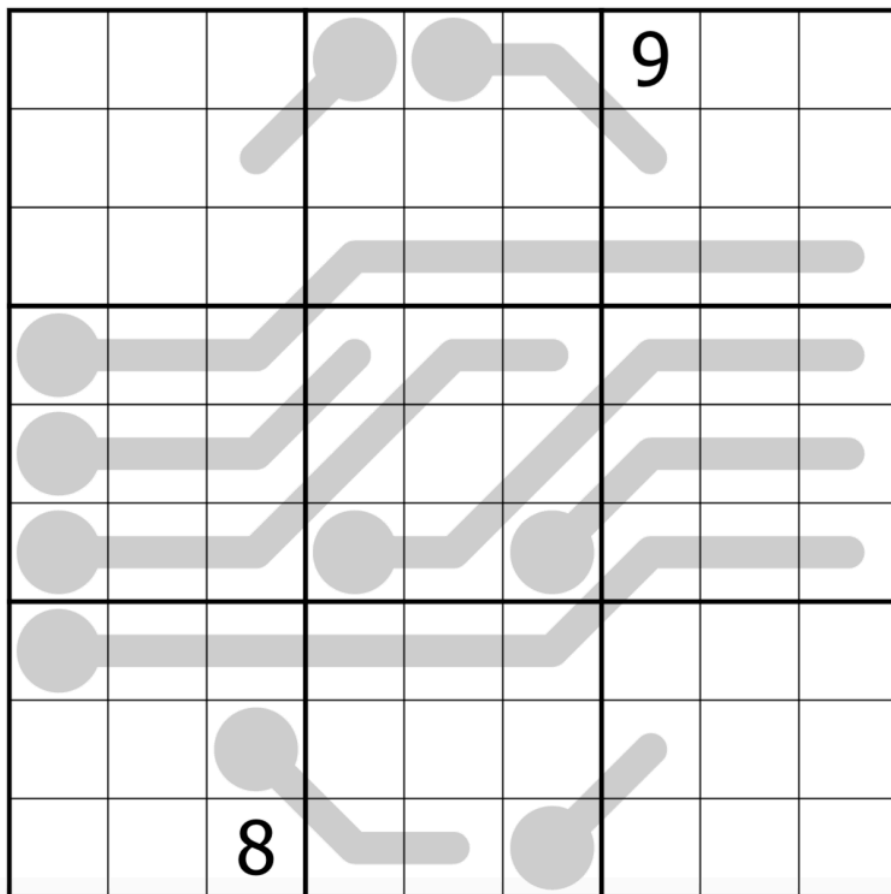
Play on SudokuPad: <https://sudokupad.app/philip-newman/20240312-collisions>

March 13, 2024: Slow Thermo
clover!

Walkthrough for Philip's 'Collisions': <https://www.youtube.com/watch?v=AmGaH6zCXXk>

Unfortunately for the speed solvers, you're required to solve today's puzzle slowly. No, slower than that. Think 'sloth crossing a busy street' slow. 'Molasses on a freezing day' slow. There ya go. Now you're in the right mindset to enjoy this **slow thermo**.

Normal sudoku rules apply. Also, digits along thermometers must either increase or stay the same, starting from the round bulb. For instance, a thermometer could include 2 3 3 5 7 7 8, in order.



SudokuPad: <https://sudokupad.app/7mal03xzen>

March 14, 2024: Diagonal/Antidiagonal Sudoku

Bill Murphy

Walkthrough for Slow Thermo: <https://youtu.be/7BwNaWSxyhs>

Hey, sorry about this one gang. I had two different sudoku that I was bringing for testing in GAS HQ the other day, a **Diagonal Sudoku** where digits can't repeat along diagonals and an **AntiDiagonal Sudoku** where digits must repeat three times along diagonals. But of all the places to leave a banana peel, someone left it right before the three flights of stairs! Silly goose!

So, I fell down and hurt my head and my pride but most importantly, my sudoku! I put the pieces I could salvage back together to make one good sudoku, but now I don't remember which line is which in this **Diagonal/AntiDiagonal Sudoku**! Can you help?

Normal Sudoku Rules Apply. Digits along one indicated diagonal must contain a set of the digits 1-9. Digits along the other diagonal must contain only three digits. The solver must determine which is which.

	4						5	
2		6						7
							9	
				2			3	
			1		9			
	7			8				
	1							
3						4		8
	5						6	

<https://sudokupad.app/8yu79yuf8r>

March 15, 2024: Idus Martiae

Philip Newman

Walkthrough of "Diagonal/Antidiagonal Sudoku" by Bill:

<https://youtu.be/i5ad0OqSxSc>

Thanks to Bill for filling in with the solve! I'm posting from my parents' today, we're here for a few days celebrating springbreakwifebirthdayniecebabyshowerdadbirthday.

Today's **GAS** is an **Antiking Clone Sudoku**!

Normal sudoku rules apply.

Antiking: Cells separated by a (chess) king's move cannot contain the same digit.

Clone: Regions of the same shape and letter are clones, and must contain the same digits in the same relative positions.

	5							
		A			9			6
				1	4	A		
	9	3						
		4				2		
	A					1	9	
			2	3	A			
8			9					
							7	

Play on f-puzzles: <https://f-puzzles.com/?id=28rokplb>

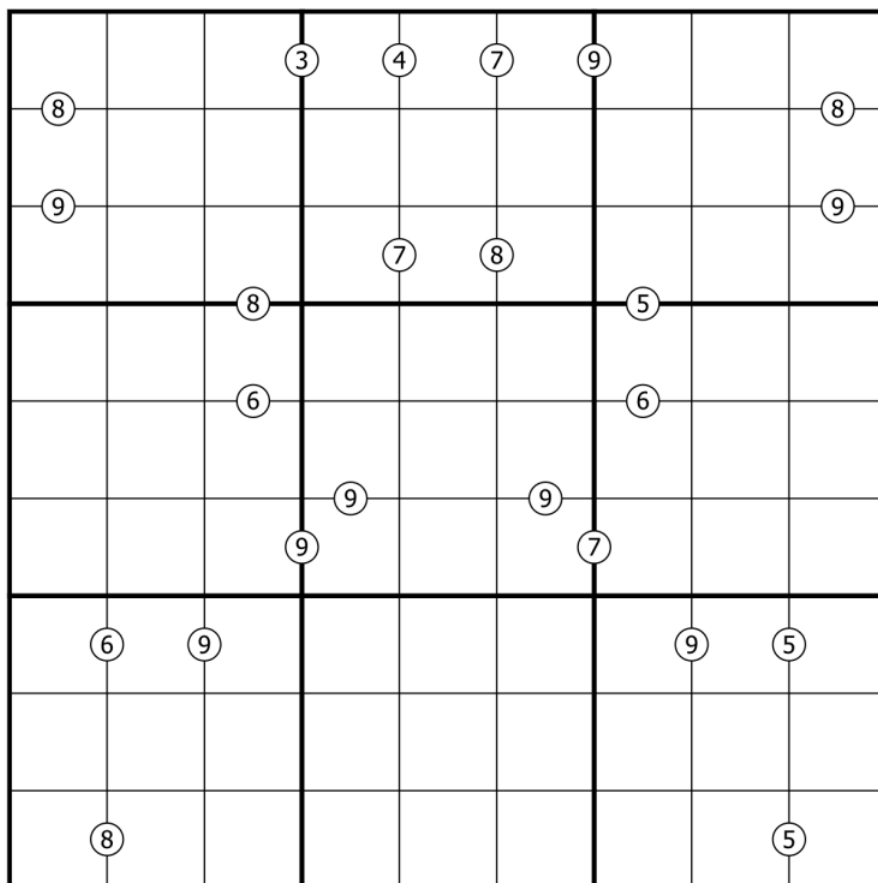
Play on SudokuPad: <https://sudokupad.app/philip-newman/20240315-idus-martiae>

March 16, 2024: March 16, 2024: Sum Sudoku
clover!

Walkthrough for Philip's 'Idus Martiae': <https://www.youtube.com/watch?v=FyaQG8xWC-k>

Yes, Philip's puzzle yesterday was so nice I solved it twice (on video). It's one of those choose-your-own-adventure sudoku walkthroughs. 🤔 And what about today's GAS? Well, hopefully you'll look at it and say 'gosh, that sure is **sum sudoku**'...

Normal sudoku rules apply. If a white dot appears between two cells, then the number in the white dot tells you the sum of the digits in those two cells.



SudokuPad: <https://sudokupad.app/216gcnzh3>

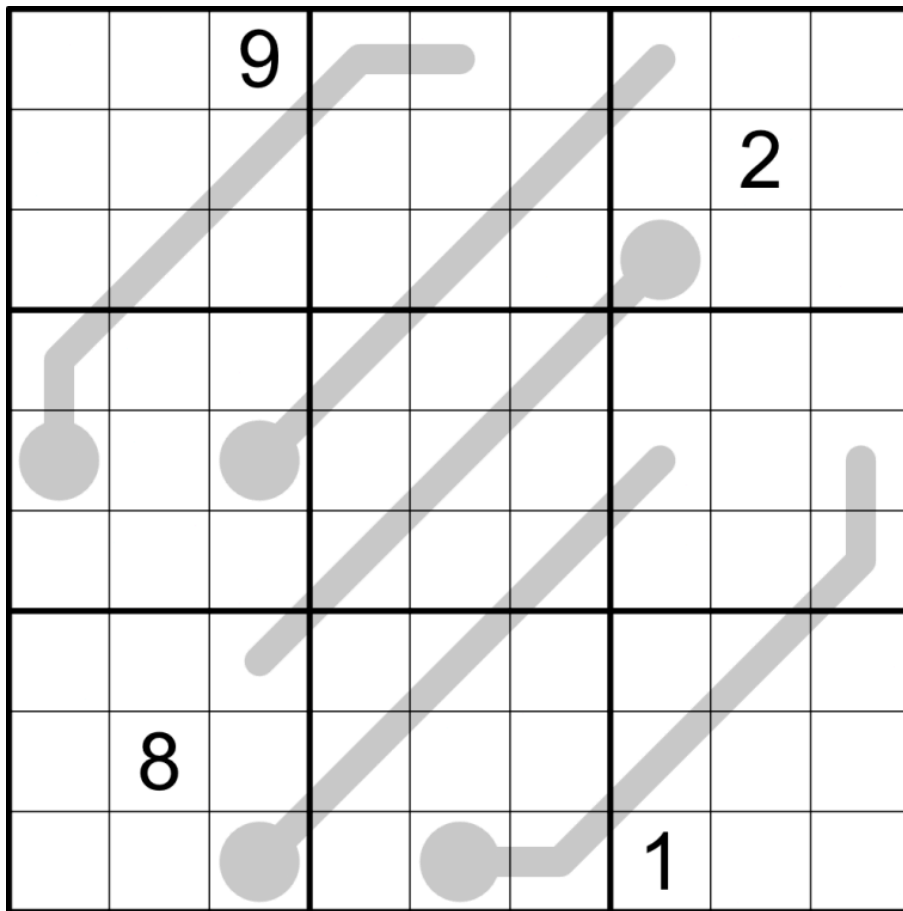
March 17, 2024: Atlantic
Bill Murphy

Walkthrough for Sum Sudoku: <https://youtu.be/3n84XN1s0T4>

Went to the Wandin Herb and Chilli festival yesterday, which is my favourite local "Country Town stirs up business by having an odd tourism thing once or twice a year". Let me know what your favourite thing a local Country Town does for tourism in the comments below.

(PTSD destroyed my ability to deal with the absurdly hot foods, but that's not the biggest loss in the world. Most extremely hot sauces tend to just dose scorpion or ghost peppers without compensating for the bitterness. Nowadays, the hottest thing I enjoy are **Thermo Sudoku**)

Normal Sudoku Rules Apply. Digits increase from bulb to tip.



<https://sudokupad.app/72d5ohtf1k>

March 18, 2024: Sequence Snikt

Philip Newman

Walkthrough of "Atlantic" by Bill:

<https://youtu.be/LnIXRmHno8Y>

Today's **GAS** combines two of my favorite GAS things: title puns and pop culture references. It also references an older puzzle (the December 20, 2021 GAS)... and by references I mean steals two of the constraints in full.

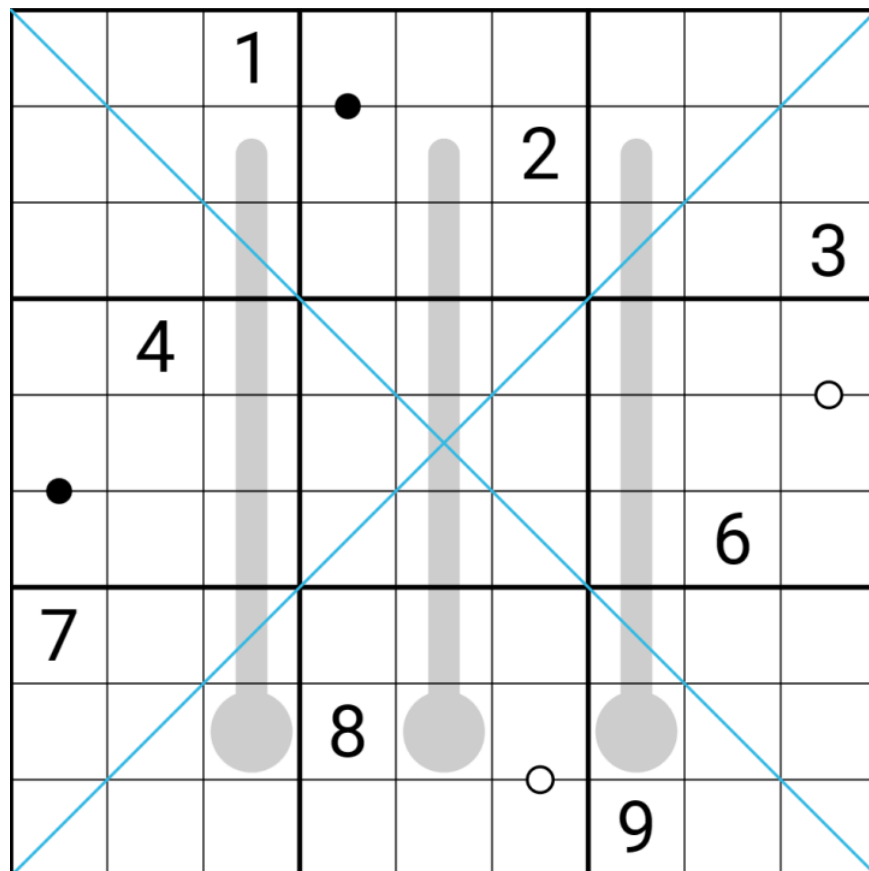
It's a **Diagonal Thermo Kropki Pairs Sudoku**! Long rules, so if you aren't as familiar with these constraints individually take a moment to process them before you start solving!

Normal sudoku rules apply.

Diagonal: Digits along the indicated diagonals cannot repeat.

Thermo: Digits along thermometers must strictly increase from bulb to tip.

Kropki Pairs: Digits in cells separated by a white dot must be consecutive (have a difference of 1); digits in cells separated by a black dot must have a ratio of 2:1. (No negative constraint - other pairs of adjacent digits may have a difference of 1 or ratio of 2:1.)



Play on f-puzzles: <https://f-puzzles.com/?id=24tq3o7b>

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240318-sequence-snikt>

March 19, 2024: Greater Sudoku
clover!

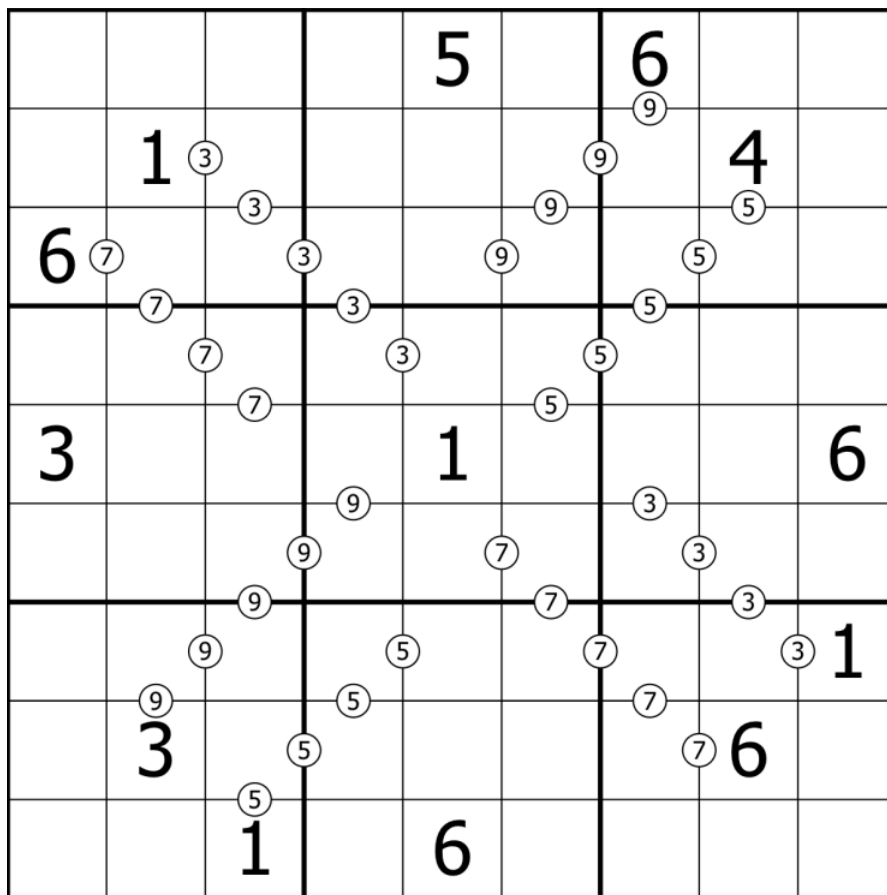
Walkthrough for Philip's 'Sequence Snikt': <https://youtu.be/sy4a2uFuQWk>

Philip just reached 1,000,000 registered solves of his puzzles on SudokuPad! Seven digits, baby! I also hit a million recently, although mine looks a bit less impressive since I spell my name two different ways (sometimes with an exclamation point, sometimes without, you know how it is).

Which means, well... *we need to talk about Bill.*

He likes to say that solve counts don't matter, of course. But I can see past that sunny exterior. He's been... dare I say... *moping*? No. Bill would never. But nonetheless, we have certain *concerns*. Concerns that can only be allayed by seeing Bill safely past that 1 million solve mark, if you know what I mean. So, after you do today's GAS, why not go solve a Bill Murphy puzzle or two? Here are some charming ones (NOT GAS): <https://tinyurl.com/y42ufmym>
<https://tinyurl.com/46cves98> <https://tinyurl.com/yeenwz9m>

Anyways, today's GAS is a **greater sudoku**! (Kinda like my greater solve count, amirite guys? ;)) Normal sudoku rules apply. If two digits are separated by a white dot, the number in the dot tells you the greater of those two digits. For instance, if a 5 appears in a dot, then one of the two surrounding digits is 5, and the other is 1, 2, 3, or 4.



SudokuPad: <https://sudokupad.app/ca32kn1kzs>

March 20, 2024: Long Bark

Bill Murphy

Walkthrough for Greater Sudoku: <https://youtu.be/PT8mfykQm0c>

Hey! Day 1 of my new job and I am filled with a bizarre sense of optimism and hope for the future that I haven't had in recent memory? God, what do people do when they're not stressed?

I think I might take up gardening.

(I had a 3D printed Katana in my hand in the first half-hour on the clock and was teaching kids how to make bacteria fluoresce with jellyfish proteins in the first 90 minutes, that's the vibe for me now)

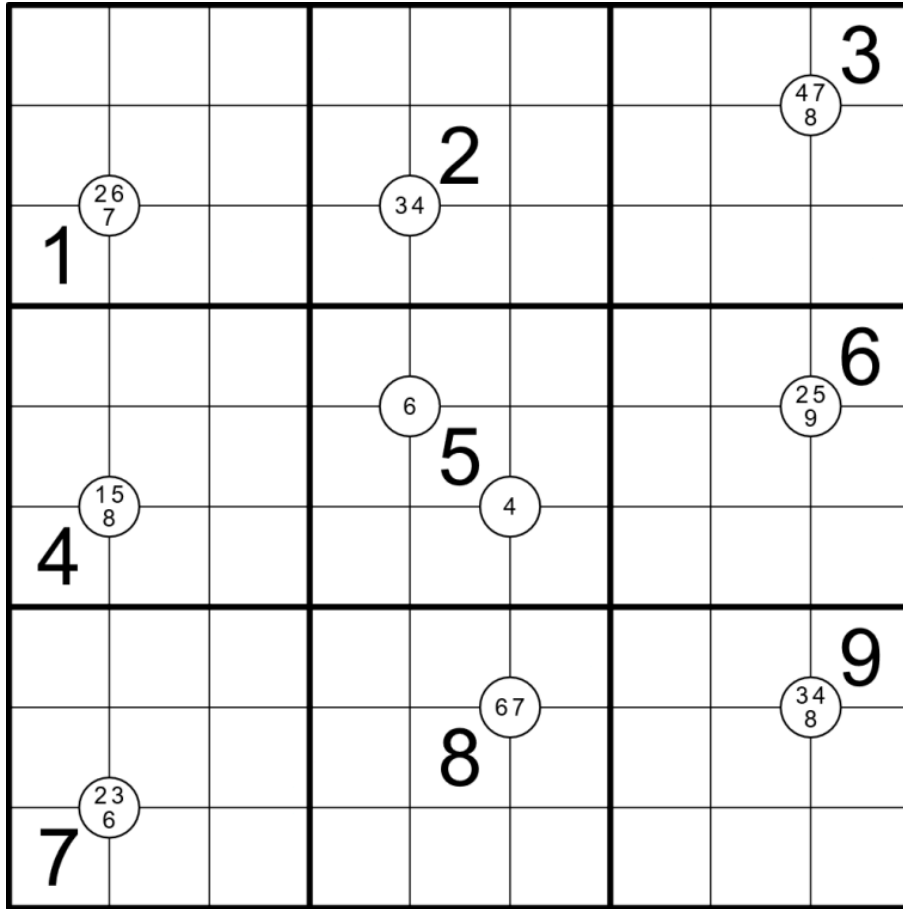
Also, thanks to Clover for a plug yesterday, what an odd thing to wake up to. Some of those were real deep cuts and it was fun for me to do it again too and try and remember what I was on about. I recently made a pack of patreon puzzles free, if you're looking for more slightly harder puzzles you can find them (LINK IN BIO LMAO) (<https://sudokupad.app/84km8nxxow> is my favourite though, very not GAS, not at all)

Today's GAS is a Quadruples Sudoku! We've done plenty of these before and I don't really ever get tired of making these, they're always kinda funky.
Normal Sudoku Rules Apply. Digits in circles must appear in the surrounding four cells.

This isn't that hard of a puzz, but my last two puzzles have had unintentionally tight times (sorry, I was basing the times off clover instead of Philip, my bad) and I'm in a good mood, so have some more generous times than usual 😊

↓↓↓ (The puzzle is on the next page) ↓↓↓

Normal Sudoku Rules Apply. Digits in circles must appear in the surrounding four cells.



<https://sudokupad.app/nk5y317w81>

March 21, 2024: Andromeda

Philip Newman

Walkthrough of "Long Bark" by Bill:

<https://youtu.be/5W5OGm2rZRw>

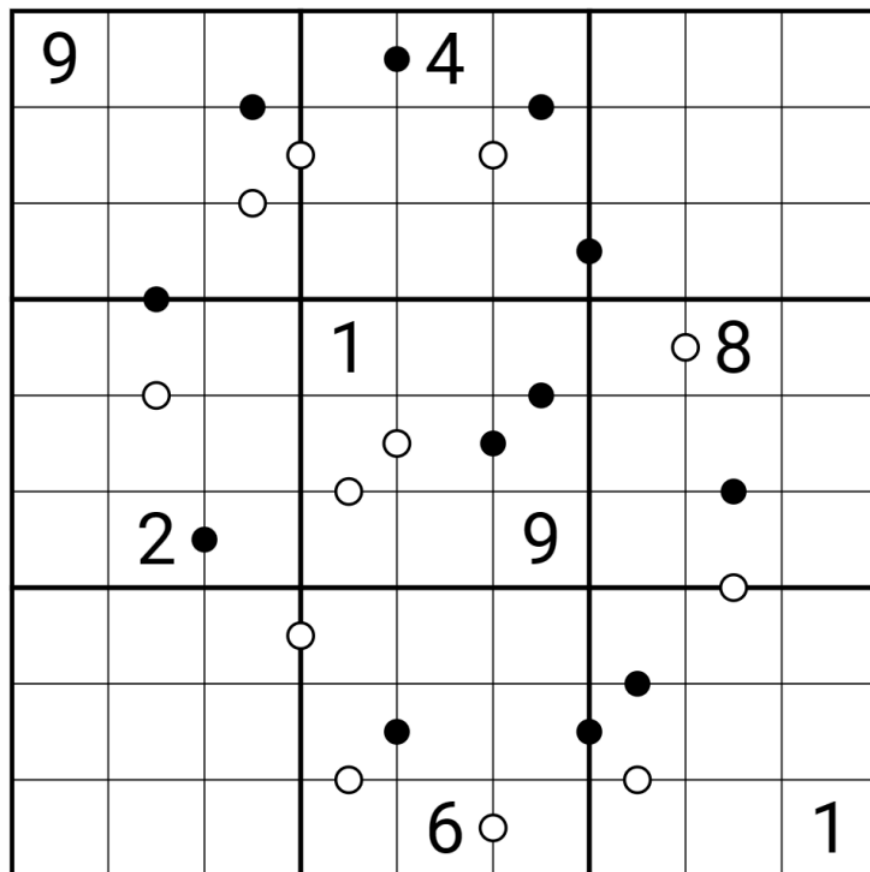
Bill's puzzle yesterday reminds me that we are sometimes asked why we make so many logically symmetric puzzles. There are a lot of reasons for that, but often it comes down to "it looks nice".

When I feel like I'm getting stuck in a GSP rut (see also: my potential Patreon puzzle backlog), I'll reach for a variant which can look symmetric but does not solve symmetrically.

Today's **GAS** is a **Kropki Pairs Sudoku**! My last puzzle had Kropki Pairs with some other stuff, so hopefully you remember how that works!

Normal sudoku rules apply.

Kropki Pairs: Digits in cells separated by a white dot must be consecutive (have a difference of 1); digits in cells separated by a black dot must have a ratio of 2:1. (No negative constraint - other pairs of adjacent digits may have a difference of 1 or ratio of 2:1.)



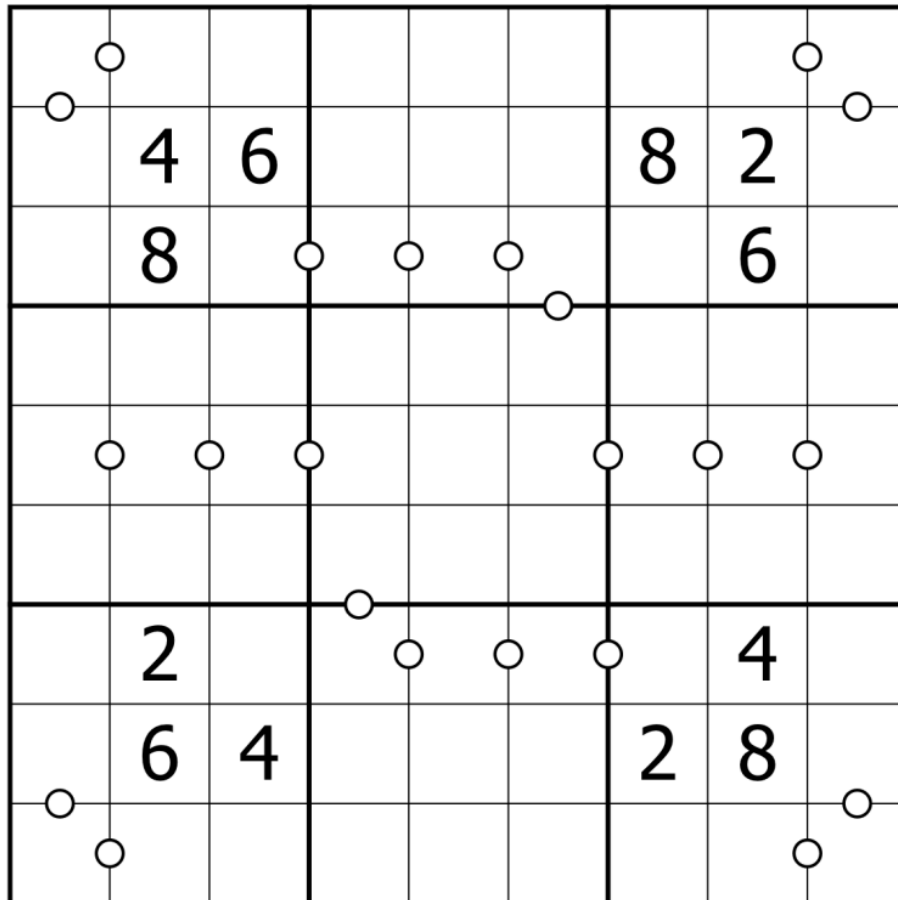
Play on f-puzzles: <https://f-puzzles.com/?id=2cn7f5jn>

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240321-andromeda>

March 22, 2024: Consec. Pairs
clover!

Walkthrough for Philip's 'Andromeda': <https://youtu.be/TW6x9AhDGIU>

Good morning! Today's GAS is a **consecutive pairs sudoku**, because who needs those stinkin' black dots anyways? Not us. Normal sudoku rules apply; digits separated by a white dot are consecutive. Not all possible dots are necessarily given.



SudokuPad: <https://sudokupad.app/f6b3geu6vo>

March 24, 2024: Why Am I Like This

Philip Newman

Walkthrough of "Outside Sudoku" by Bill:

https://youtu.be/sPK_nkFH_uQ

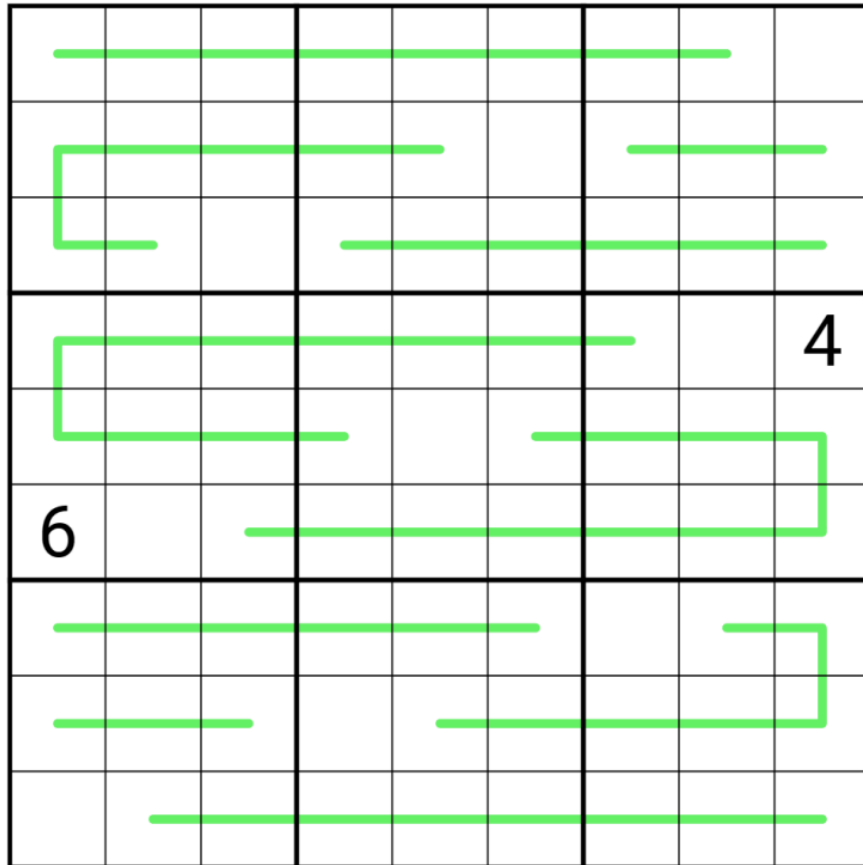
Today's **GAS** is a **German Whispers Sudoku**! Hopefully you remember your German Whispers tips, but if not we have a video for that!

clover's "Three tips for German Whispers":

<https://youtube.com/shorts/NDjQff1YPal>

Normal sudoku rules apply.

German Whispers: Digits in cells directly connected by a line must differ by at least 5.



Play on f-puzzles: <https://f-puzzles.com/?id=22jnm9tw>

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240323-why-am-i-like-this>

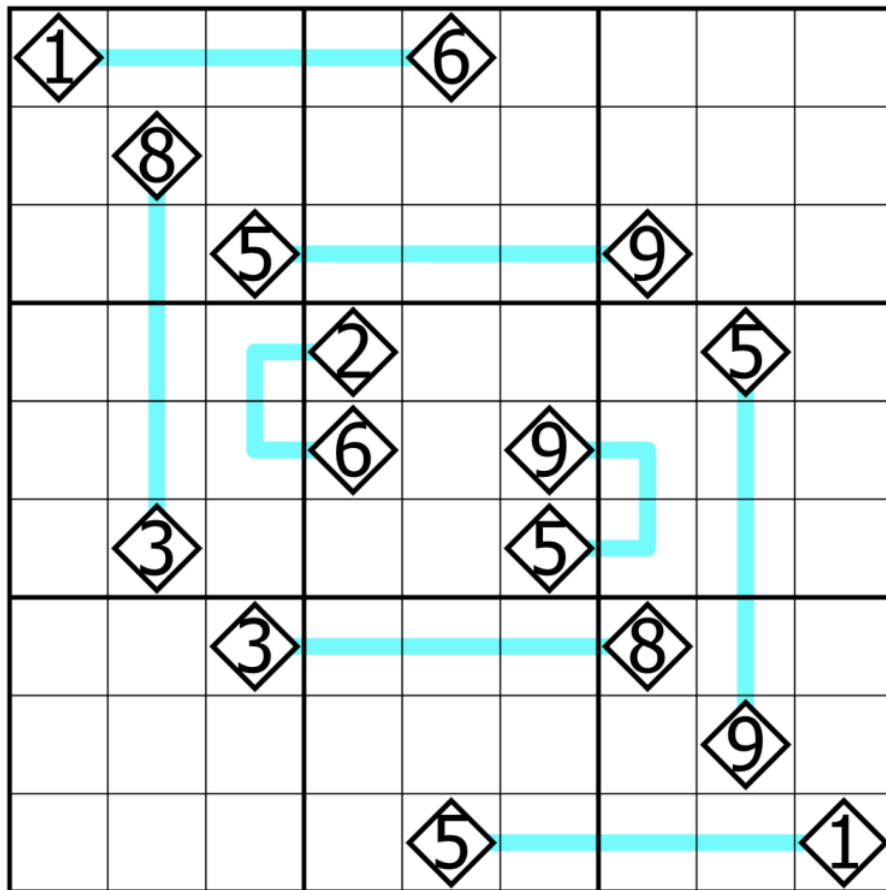
March 25, 2024: Lockout Lines clover!

Walkthrough for Philip's 'Why Am I Like This?': <https://youtu.be/Oo8PyoHeVol>

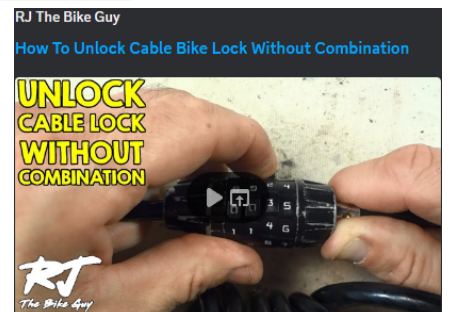
Here's a little something I got to learn about the other day, when a customer managed to forget the combination to their bike lock. Just passing it along in case you find it useful someday, along with this **lockout lines** sudoku! <https://www.youtube.com/watch?v=cvrlreLR7SM>

🌟 By the way, April Fool's Day is coming. You have been warned. 🌟

Normal sudoku rules apply. Also, there are some lines in the grid with diamonds at each end. For each line, the digits in the two diamonds must have a difference of 4 or more. Also, the digits along the line must NOT have values between or equal to the values in the diamonds. For instance, if two diamonds contain the digits 1 and 7, the only valid digits that can appear on the line are 8 and 9.



SudokuPad: <https://sudokupad.app/uyol9lzyp5>



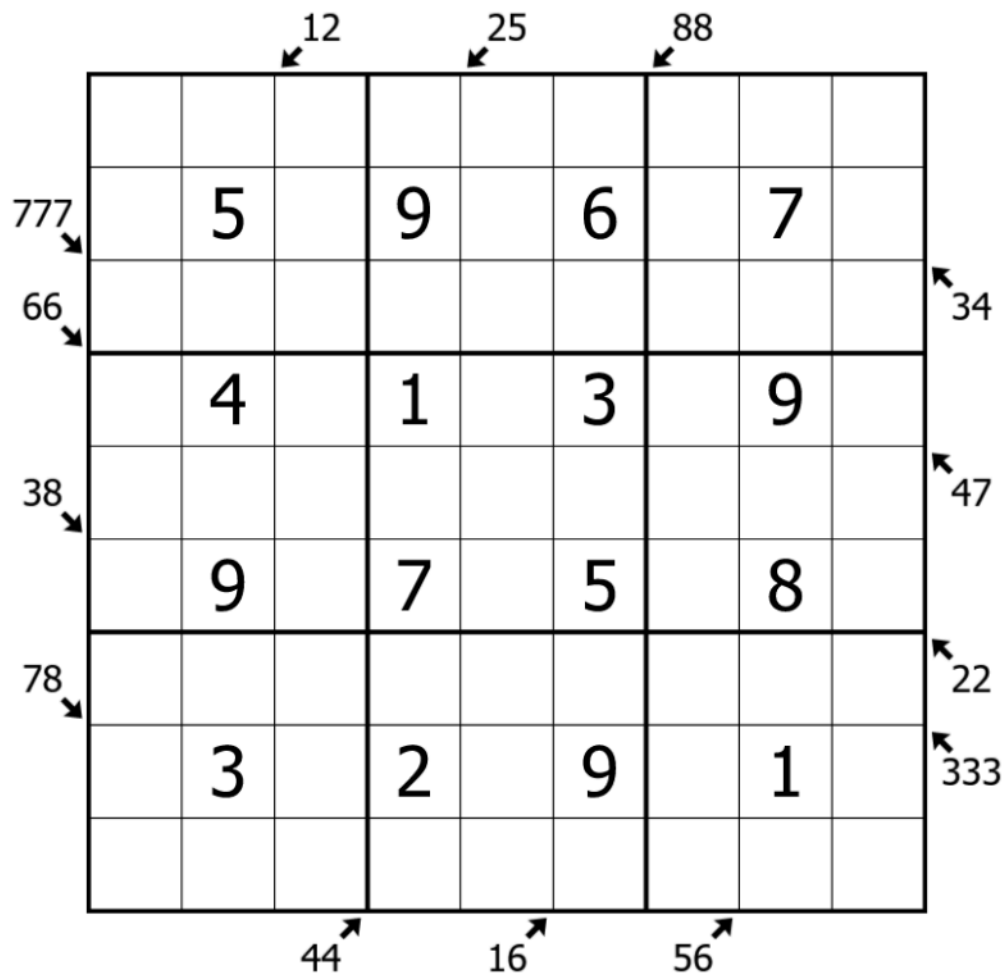
March 26, 2024: Czech Outsider Sudoku

Bill Murphy

Walkthrough for Lockout Lines: https://youtu.be/yUg_rbh46_w

Got a ping a couple of days back when I didn't have a song title for the title of a puzzle, but I like to keep it to just the name of the variant if it's a little weird or a little new, so when the opportunity to set something like this **Czech Outsider Sudoku** for GAS came up, I had to resist the urge to go with *Cz-Czech it Out(sider)*

Normal Sudoku Rules Apply. Clues outside the grid indicate digits that must appear along the indicated diagonal. (eg. a clue outside the grid of 112 would indicate that the marked diagonal must contain at least two 1s and a 2.)



<https://sudokupad.app/e0ap6cmqa5>

March 27, 2024: Where 4 Art Thou?

Philip Newman

Walkthrough of "Czech Outsider Sudoku" by Bill:

<https://youtu.be/n3yjAz8pbHc>

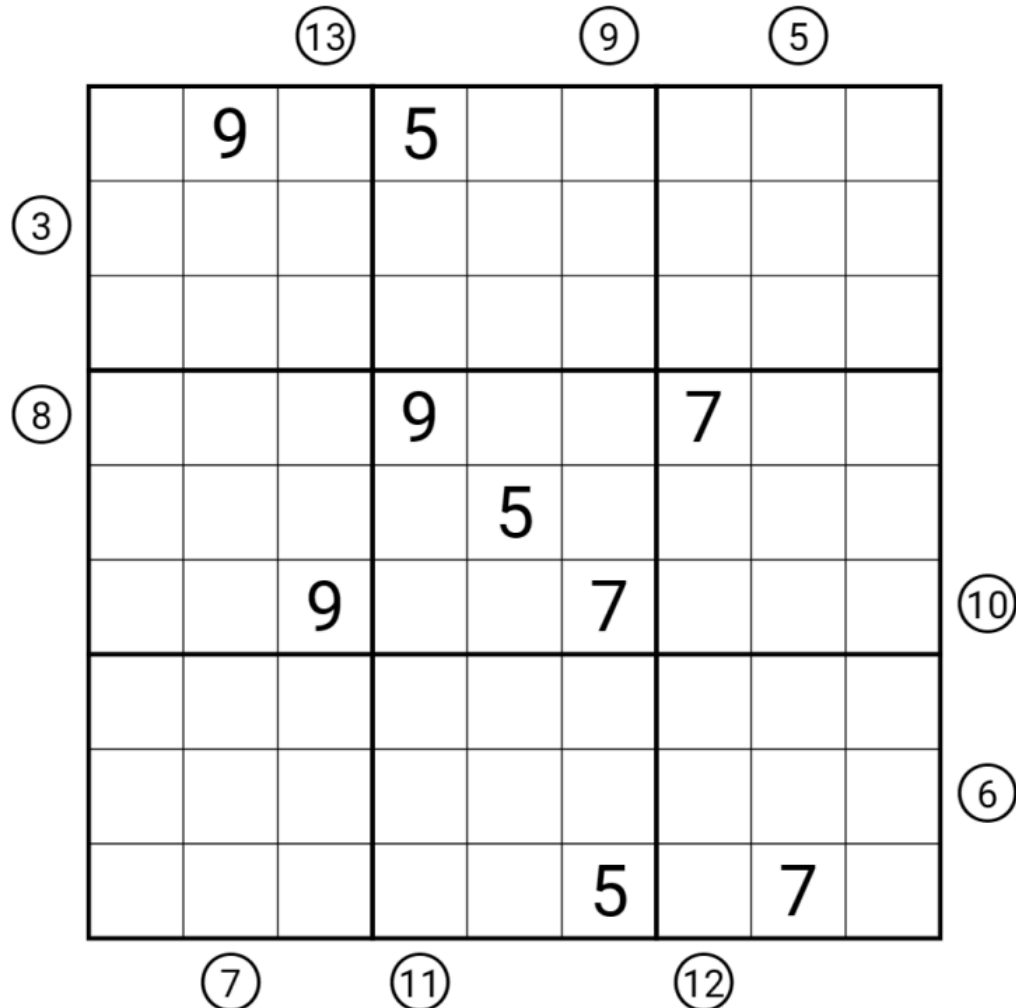
We're playing a bonus game today, but it's not the usual type of bonus game. You won't be guessing who set this (I did). You won't be guessing what comes tomorrow. Instead, the game is for Bill and clover: are they right??

(Right about what? I suppose you could guess *that* if you like...)

Today's **GAS** is an **X-Sums Sudoku**!

Normal sudoku rules apply.

X-Sums: Clues outside the grid tell you the sum of the first **X** digits in the corresponding row or column, starting with the digit adjacent to the clue and continuing away from the clue, where **X** is the adjacent digit. (For example: ?????7534 (19) would be a valid fill for a row where 19 is the sum of the rightmost 4 digits.)





Play on f-puzzles: <https://f-puzzles.com/?id=23og3ozg>

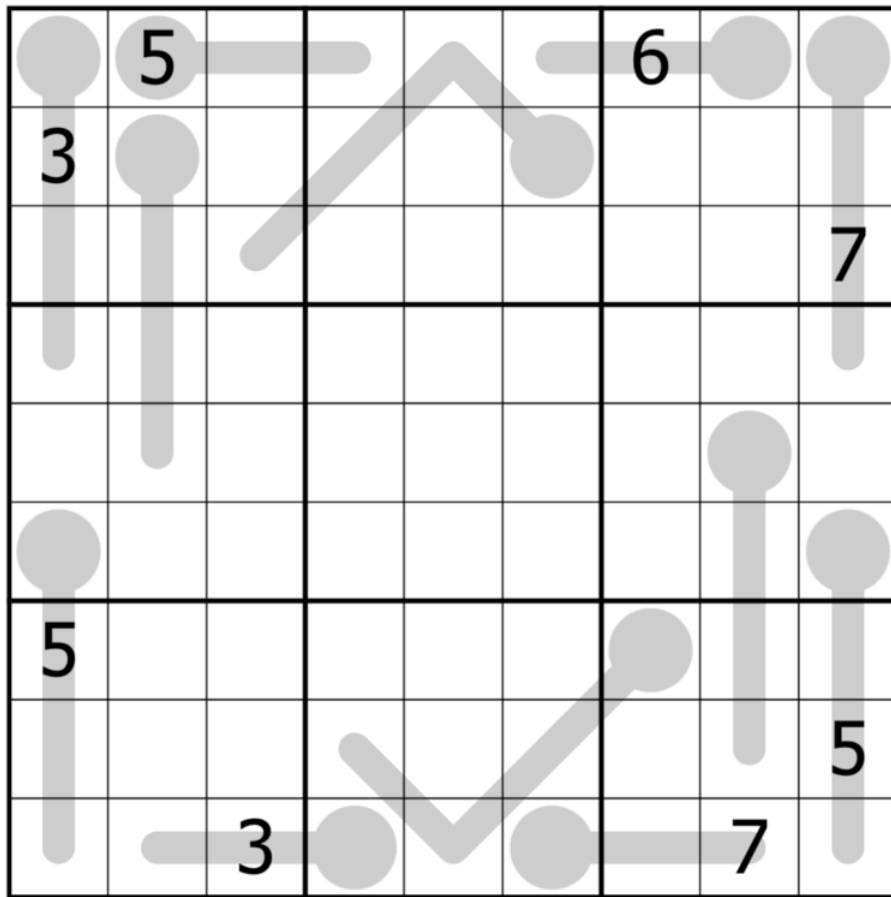
Play on SudokuPad: <https://sudokupad.app/philip-newman/20240327-where-4-art-thou-v2>

March 28, 2024: Fast Thermo
clover!

Walkthrough for Philip's 'Where 4 Art Thou?': <https://www.youtube.com/watch?v=polTn06Ndrs>

Is today's GAS running? Well, you'd better go catch it then :3

In this **fast thermo sudoku**, normal sudoku rules apply. Also, digits along thermometers must increase, starting from the round bulb.  WEIRD VARIANT WARNING  : Digits along thermometers must increase by **at least 2 at each step** (for instance, 1 5 7 is a valid thermometer, but 1 5 6 is not).



SudokuPad: <https://sudokupad.app/03qfw765i7>

March 29, 2024: Me Myself and I

Bill Murphy

Walkthrough for Fast Thermo: <https://youtu.be/mhG-439cYzw>

Hey, if you didn't read it, Clover posted about April 1st, which is coming up and it's the one day a year where we let ourselves get mega silly instead of just normal silly and to be fair, considering we reign it in for y'all on the regular, you gotta let us have this, it's enrichment for our enclosure: #daily-sudoku-puzzles

I was curious about how often we've done **Nonconsecutive Sudoku** for GAS and the answer is this is #15 out of the big 1K, and that's not shocking because it's a hard one to set good! You could say these are definitely..._____ [see the spoiled text at the end of this document]

Normal Sudoku Rules Apply. Adjacent cells must not contain consecutive digits.

1		2		3		4		
		5		6		7		8
		1	7					4
	8			5			2	
6					3	9		
2		3		4		5		
		6		7		8		9

<https://sudokupad.app/flftamwyn>

March 30, 2024: Pyramid Scheme

by Philip Newman

Walkthrough of "Me Myself and I" by Bill:

<https://youtu.be/jISZmCh1exE>

If you're new to GAS, you may not know that I am a prince of an undisclosed and possibly fictional country. Solvers here have helped to depose my crazy uncle in order to stabilizing the hatting market, and things have been quiet for a while...

It has come to my attention that if you are subscribed to this channel you may have received a message about a promising new business involving the sale of party hats. You might be lured in by the promise of huge profits if only you will recruit others to distribute hats as well. Be warned that these party hats are cheap knock-offs... in fact, if you read the fine print, you will see that they aren't party hats at all, but rather "part e-hats". What my crazy uncle won't tell you (yes, he is once again behind this nonsense) is that they are in fact only 2% e-hat, and 98% partially hydrogenated hats. This is a lawsuit waiting to happen, and you don't want to be caught with thousands of these things in your warehouse when the other shoe drops.

Support our 100% genuine free-range party hats by solving today's **GAS**, an **Antiking Sudoku!**

Normal sudoku rules apply.

Antiking: Cells separated by a (chess) king's move cannot contain the same digit.

				2		4		6
9					3		5	
	8					1		
7		4						5
	6						4	
5						6		3
		9					2	
	5		7					1
4		6		8				

Play on f-puzzles: <https://f-puzzles.com/?id=2avem52k>

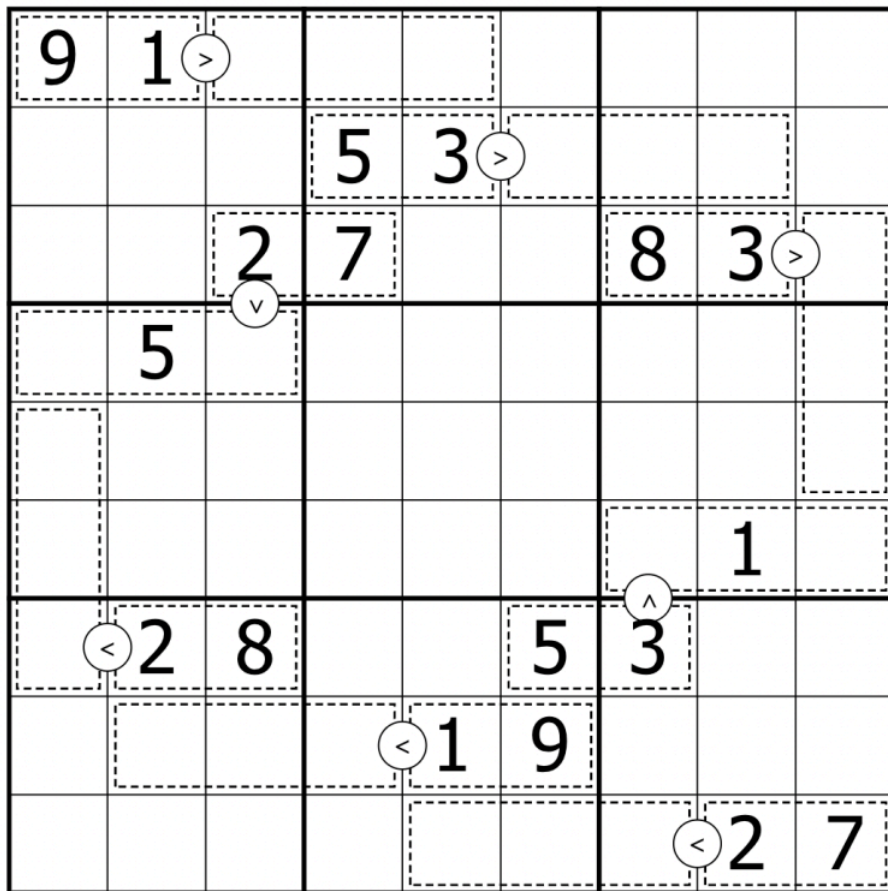
Play on SudokuPad: <https://sudokupad.app/philip-newman/20240330-pyramid-scheme>

Mar. 31, 2024: Cage Comparison
 clover!

Walkthrough for Philip's 'Pyramid Scheme': <https://www.youtube.com/watch?v=LERwVeHCZVU>

In the immortal words of George Orwell, sudoku philosopher: All killer cages are equal, but some cages are more equal than others. 🙄

Today's GAS is a **cage comparison sudoku**! Normal sudoku rules apply. Inequalities compare the totals (sums) of the adjoining cages. For instance, of the two cages in row 1, the left one has a greater sum than the right one.



SudokuPad: <https://sudokupad.app/8kduk19shf>

Bonus 1: Japanese Sums Sudoku

Clover

Normal sudoku rules apply.

Also, some clues appear outside of the grid. Each clue consists of a number and a color (either green or brown; brown clues have additionally been marked with circles for accessibility). Each number represents the sum of the digits in a contiguous run of cells in that row or column, which should be shaded in that color. (For instance, the green '19' clue above c9 indicates that there is a run of green cells that sums to exactly 19.)

Clues appear in the grid in the order shown, from top to bottom or left to right. **Clues of the same color must be separated by at least one non-colored cell in the grid.** **Clues of different colors are not necessarily separated by any cells.** All clues are given. A run of cells may consist of just one cell.

I recommend shading non-colored cells in blue for the full effect!

The grid is a 10x10 grid. The clues are as follows:

- Row 1: 10 (green, above c5)
- Row 2: 3 11 (green, left of c1-c2), 7 7 8 (green, above c4-c6), 6 (green, above c9)
- Row 3: 6 1 11 6 2 9 (green, left of c1-c6), 7 19 (green, above c8-c9)
- Row 4: 4 7 11 2 15 (brown, circled, left of c1-c5), 3 12 9 5 (green, left of c6-c9)
- Row 5: 1 17 2 13 (green, left of c1-c4)
- Row 6: 11 10 9 (green, left of c1-c3)
- Row 7: 6 3 2 1 (green, left of c1-c4)
- Row 8: 6 20 6 (green, left of c1-c3)
- Row 9: 3 17 (green, left of c1-c2)
- Row 10: 9 (green, left of c4), 6 (brown, circled, left of c4), 8 (brown, circled, left of c4), 11 2 1 3 14 (green, left of c1-c5)

<https://sudokupad.app/zoheqwz0dg>

Bonus 2: X-Sums

Philip Newman

Normal sudoku rules apply.

X-sums: clues tell you the sum of the first X digits in that row or column (counting from the direction of the clue), where X is the digit in the first cell in that row or column (closest to the clue.)

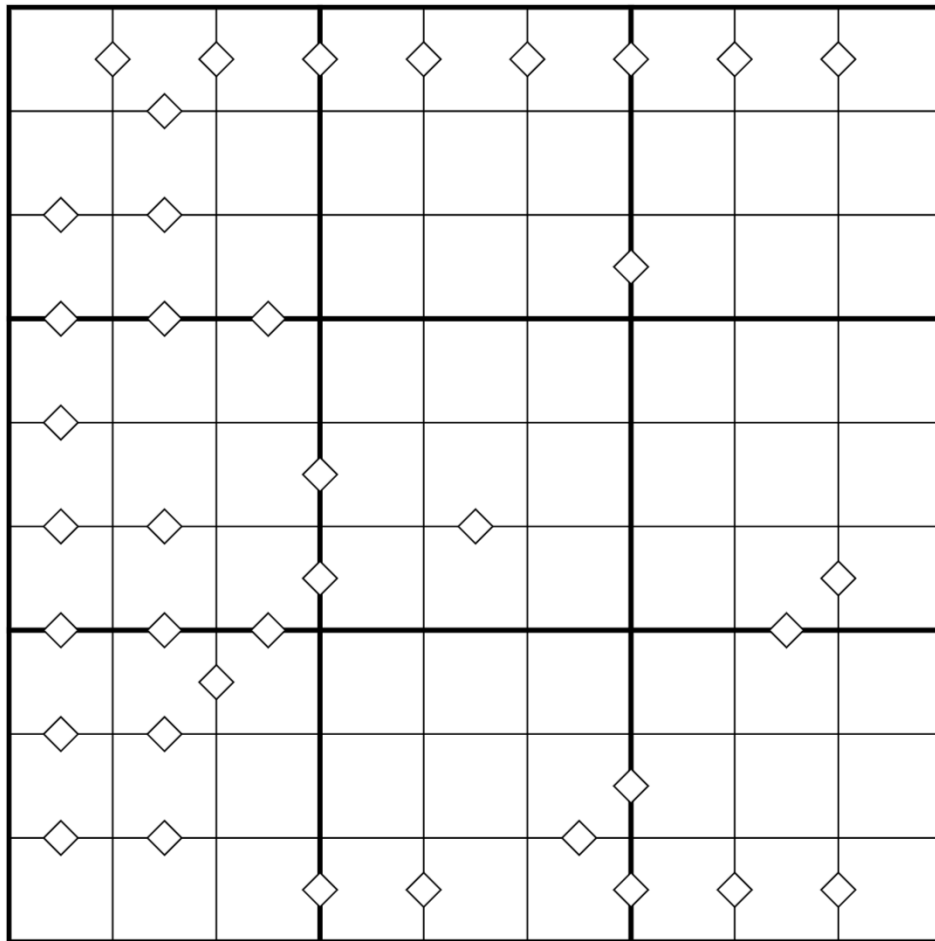
			2						
45									
41	6					4			
				2					
		8					2		39
									43
					2				

<https://sudokupad.app/xkhwwdwzky>

Bonus 3: XY Differences

Bill Murphy

Normal sudoku rules apply. Diamonds inbetween cells indicate that the two linked cells differ by X, where X is the first cell in that row or column as read from the top or the left. **Not all possible diamonds are given.**



<https://sudokupad.app/dvsv4nzyns>

Bonus 4: Cage Comparisons

Clover

Normal sudoku rules apply. Equals signs and inequalities compare the totals of the adjoining cages. For instance, of the two cages in column 1, the upper one has a greater total than the lower one.

7	>	5	3	1			
							2
		1	<				
				3	v		4
v							
3		4					
		^		>	2		
1							
		2	4	6	<	8	

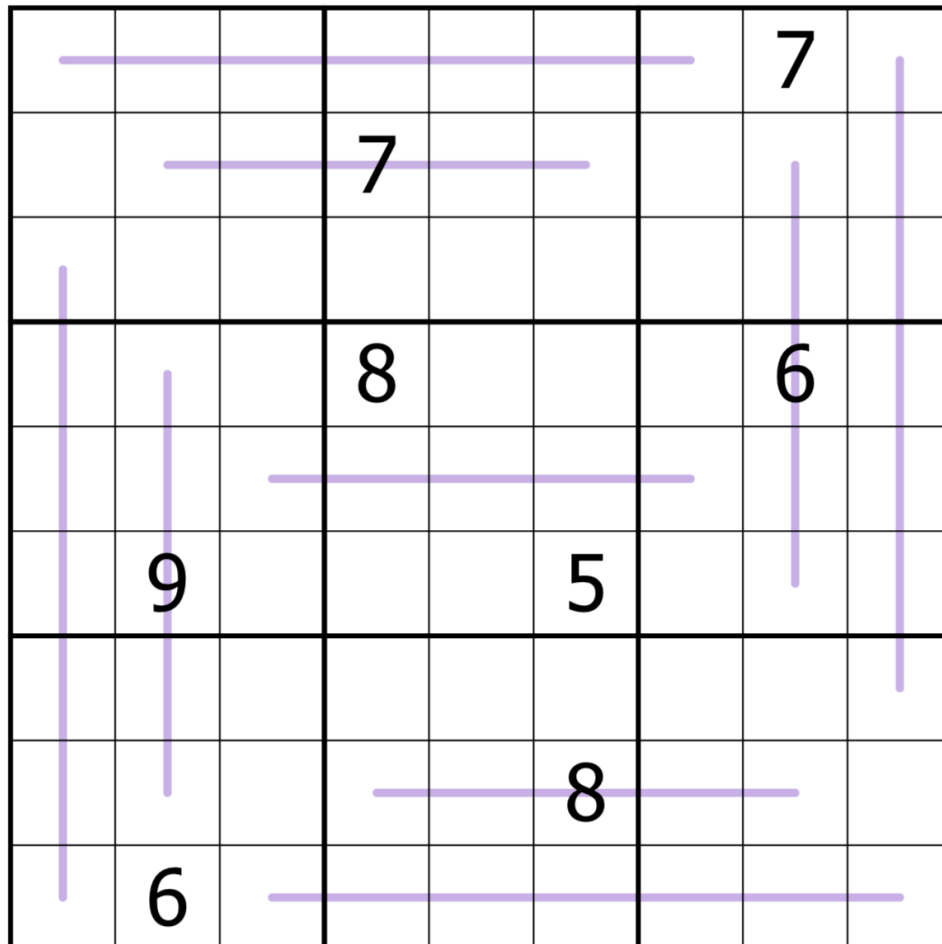
<https://sudokupad.app/qb7trl2xht>

Bonus 5: Zipper Lines

Philip Newman

Normal sudoku rules apply.

Zipper Lines: some lines of odd length appear in the grid. For each line, the digit in the center of the line is equal to the sum of each pair of digits that are the same distance away from the center. For instance, $r3c1+r9c1=r4c1+r8c1=r5c1+r7c1=r6c1$.



<https://sudokupad.app/kig7e4ckn5>

Time Benchmarks

	 Two party hats	 One party hat	 Today's dinosaur:
Mar 1, 2024	8:00	14:00	Sparkling Spinophorosaurus
Mar 2, 2024	any time	--	Celebratory Camarasaurid (for attempting)
Mar 3, 2024	7:00	13:30	Abutting Anchisaurid
Mar 4, 2024	8:00	15:00	a different dinosaur
Mar 5, 2024	6:30	13:00	Non-binary Nanuqsaurus
Mar 6, 2024	9:00	17:00	Anniversary Aeolosaurin
Mar 7, 2024	7:00	13:00	kingly Kaatedocus
Mar 8, 2024	11:00	20:00	Antarctopelta
Mar 9, 2024	7:00	14:00	Sniping Saltasaurine
Mar 10, 2024	8:00	15:00	Styracosaurus saippuakivikauppias
Mar 11, 2024	9:00	16:00	Hidden Herrerasaurus
Mar 12, 2024	7:00	21:00	Fog-brained Flagellicaudata
Mar 13, 2024	7:00	13:00	snoring Sonorasaurus
Mar 14, 2024	7:00	13:00	Clumsy Claosaurus
Mar 15, 2024	6:30	13:00	Anarchic Apatosaurine
Mar 16, 2024	7:00	13:00	sum sort of Shantungosaurus
Mar 17, 2024	7:00	13:00	ScovillLeyesaurus
Mar 18, 2024	7:00	20:00	Brachiosaurid, Bub
Mar 19, 2024	7:00	13:00	great Gideonmantellia
Mar 20, 2024	8:30	15:00	Optimistic Overosaurus
Mar 21, 2024	8:00	18:00	Twisty Turiasaurian
Mar 22, 2024	6:30	12:00	minimalist Minmi
Mar 23, 2024	7:30	14:00	Ripe Richenia
Mar 24, 2024	6:00	13:00	Calming Colossosaur
Mar 25, 2024	6:30	12:00	locked-out Lycorhinus
Mar 26, 2024	8:00	16:00	Becklespinax Boy
Mar 27, 2024	7:30	15:00	Calculated Cetiosaurid
Mar 28, 2024	6:00	11:30	speedy Sphaerolithus
Mar 29, 2024	7:00	13:00	sequenced Spinophorosaurus
Mar 30, 2024	6:30	14:00	Egyptian Eusaurischia
Mar 31, 2024	7:00	13:00	cage-free Compsognathus

Hints and Spoilers

Spoiler for March 29, 2024

I was curious about how often we've done **Nonconsecutive Sudoku** for GAS and the answer is this is #15 out of the big 1K, and that's not shocking because it's a hard one to set good! You could say these are definitely...not...con...sequential