

GAS Leak

Genuinely Approachable Sudoku
from the CtC Discord

Volume 43:
August 1 – August 31, 2024

Welcome to August!

We got a full month of GAS puzzles for you, one better than the other.

August also means we have a month-long game to guess what the next day's puzzle type will be. If you participated during its run you already got a bonus hat for each correct guess. If you didn't you may award them to yourself :-)

Have fun solving!

August 1, 2024: X Sudoku

by Philip Newman

Walkthrough of "Android Alley" and "Pointless Experience" by Bill:

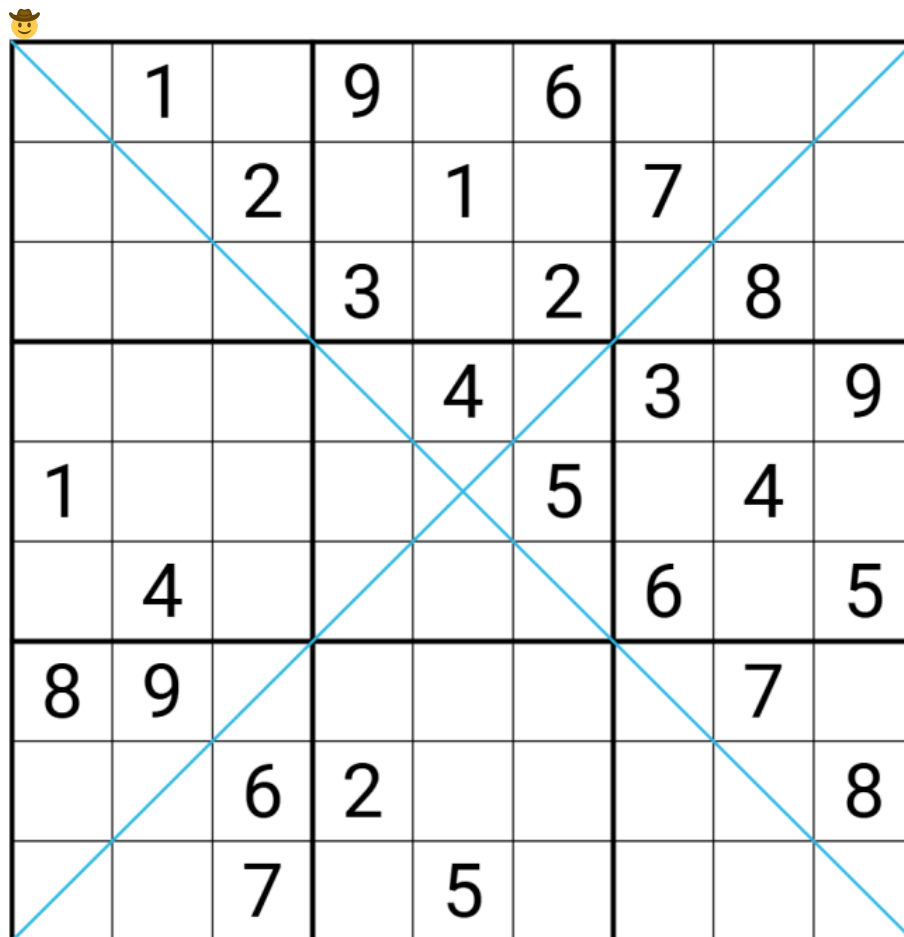
<https://youtu.be/BOgywVCyaBc>

WELCOME to [see Hints page at the end of the document for the spoiled text] August, the game show where the points don't matter but the hats do. Your mission, should you choose to accept it, is to guess what variant or variants we're going to post tomorrow!

Today's **GAS** is an **X Sudoku**! This variant is also called "Sudoku X" or "Diagonal Sudoku", which means @Calump has earned our first bonus hat for the month! 🧢 Honestly thought more of you would get this with @clover! totally giving it away on Tuesday! Maybe you'll do better tomorrow...

Normal sudoku rules apply.

X: Digits along the indicated diagonals cannot repeat.



Play on SudokuPad: <https://sudokupad.app/philip-newman/20240801-x-sudoku>

Play on f-puzzles: <https://f-puzzles.com/?id=2a8m8wkw>

August 2, 2024: XV (-)
by clover!

Walkthrough for Philip's "X Sudoku":
<https://youtu.be/HU1MuthGe7g>

Good morning, you clever clogs! I'm speaking, of course, to @giusb3.0 and @dangernoodle , who correctly guessed that today's puzzle would be an **XV sudoku**. Congrats! Wear your bonus hats with pride! 🧐🧐

Normal sudoku rules apply. Digits separated by an X sum to 10; digits separated by a V sum to 5. **Negative constraint alert:** 🚨 All possible Xs and Vs have been given (if two adjacent digits are not separated by an X or a V, their sum is not 5 or 10). 🚨

9	v				v	7
v	7		x		6	v
	v	8	x	9		
	x				x	
		6	x	7	v	
v			v			v
	9			x		8
8	v				v	6

SudokuPad: <https://sudokupad.app/0opd54j2sr>

August 3, 2024: The Order Of The Seasons

by Bill Murphy

Walkthrough for XV(-): https://youtu.be/_L3ZapRsJ0E

Congratulations to @nocturnerazor for correctly guessing today's Sudoku would be **Odd**. I do feel like that you could say that about everything I post, but yeah today's GAS is **Odd Sudoku**!

Suggestion now that I feel like the game is afoot:

<https://www.logic-puzzles.ropeko.ch/php/db/search.php?searchValue=sudoku> has a big list of Variants on it, won't say that we're limiting ourselves to it, but it might help if you want to make some educated guesses.

Normal Sudoku Rules Apply. Cells with grey circles must contain odd digits.

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

<https://sudokupad.app/5an1ykh7d2>

August 4, 2024: Even Sudoku

by Philip Newman

Walkthrough of "The Order of the Seasons" by Bill:

<https://youtu.be/8pBGrErLGKU>

Congrats to @nocturnerazor, @tlgeotau, @Calump, @Logan Thee Walluigi, @RegalSentinel, @dangernoodle, @Dying Flutchman - The mig bixup, @atroposhears, @sararielle 🦎 B8 🐼 1E4 🏴 20B 🐦 13 🦀 5A 🐻 2E, @zer0keefie, @malbolgian, @I Love Sleeping – Leeor, @kinoseidon, and @Aesewesen 🦘 for correctly guessing today's variant! (I'm afraid I can't be as lenient today, we'll run out of hats!)

Today's **GAS** is an **Even Sudoku**!

Normal sudoku rules apply.

Even: Digits in grey squares must be even.



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

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240804-even-sudoku>

Play on f-puzzles: <https://f-puzzles.com/?id=22p2ozxt>

August 5, 2024: Frame Sudoku

by clover!

Walkthrough for Philip's "Even Sudoku":

<https://youtu.be/SyqKxVpM9NM>

I must admit, I feel some mild disappointment at the dearth of *right* guesses for the variant *today*. Maybe tomorrow you'll have a little more imagination? 🤔

Today's GAS is a **frame sudoku**! Normal sudoku *rules apply*. Clues outside of the grid give the sum of the *first three* digits seen in that row or column, looking from the direction of the clue.

	6			9				16	
16									8
	5			1			4		
									7
	4						3		
9									
	3			5			2		
7									18
	18			8			9		

SudokuPad: <https://sudokupad.app/ai6qdre4in>

August 6, 2024: Del Oro

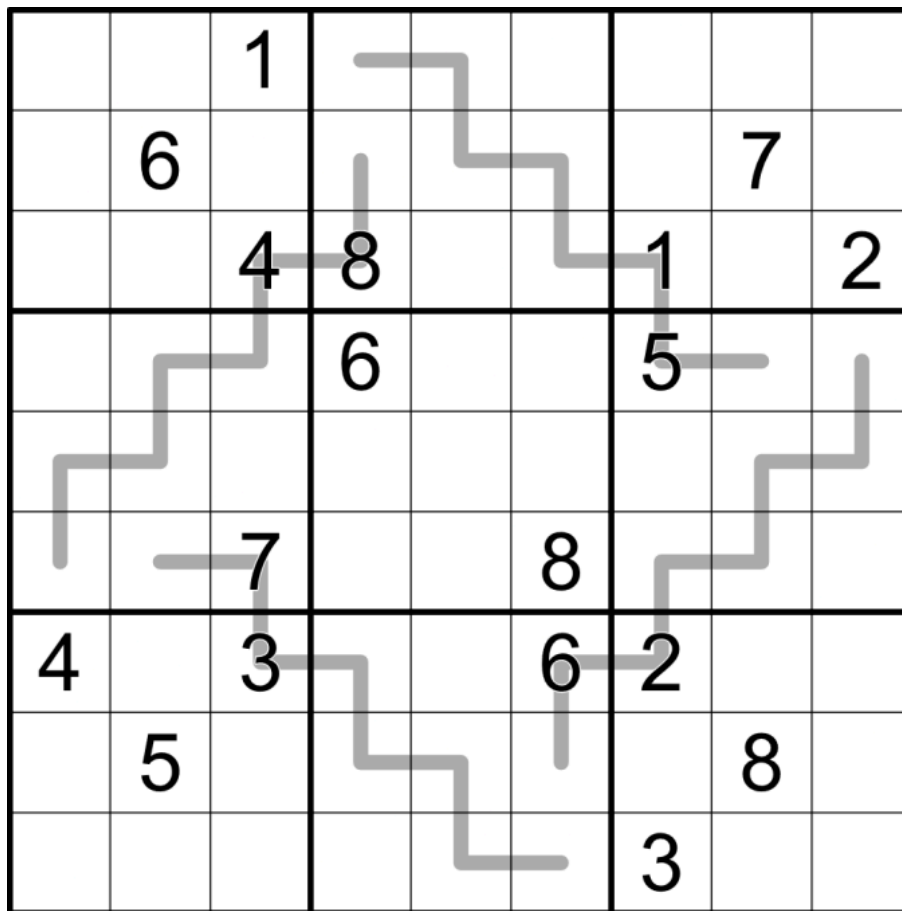
by Bill Murphy

Walkthrough for Frame Sudoku: <https://youtu.be/qeUD0izroiA>

Wow, you're telling me nobody saw **Argyle Sudoku** coming? Weird! Bonus hat for Philip for predicting no correct guesses then!

(Don't worry, we absolutely did pick some more *normal* ones, but I'll be real and go "We are pulling out deep cuts to keep the game interesting just a lil")

Normal Sudoku Rules Apply. Digits may not repeat along grey lines.



<https://sudokupad.app/y5exqj2az7>

August 7, 2024: Windoku

by Philip Newman

Walkthrough of "Del Oro" by Bill:

<https://youtu.be/YLxmZDx0wkk>

Today's **GAS** is a **Windoku**! Congrats to @Aesewesen 🐘, the only bonus hat 🤠 today!

There is a big **GAS 101** hint today, in the form of a youtube short! The puzzle is much trickier (though still "easy", for a certain value of easy) without, but if you don't know what I'm talking about already you should definitely check this out: <https://youtu.be/JCjtSI1OG7U>

Normal sudoku rules apply.

Windoku: Each marked "window" region must contain each of the digits from 1 to 9 without repeats.



A 9x9 grid for a Windoku puzzle. The grid is divided into 3x3 subgrids by solid lines. Within each subgrid, there are dashed lines forming a 2x2 pattern of 'windows'. Each window is a 2x2 area of cells. The puzzle is partially filled with numbers. The numbers are as follows:

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

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240807-windoku>

Play on f-puzzles: <https://f-puzzles.com/?id=252abuy9>

August 8, 2024: Round Off Sudoku

by clover!

Walkthrough for Philip's "Windoku": <https://youtu.be/FD9V80gFJ8I>

Another day, another abject failure on your part to even *begin* to guess the next in my devious series of August puzzles. Gosh, do you even *want* to guess? Are you even trying? 🙄 I hereby award myself all of the bonus hats, none of you get any, and I'll probably look cuter in them anyways: 🧢🧢🧢🧢

Today's GAS is a very guessable **Round Off Sudoku**!

Normal sudoku rules apply. Each cage contains a two-digit number, reading from left to right. The clue in the top left corner of the cage tells you the result of rounding that two-digit number to the nearest 10. Numbers ending in 5, 6, 7, 8, or 9 are rounded up; numbers ending in 1, 2, 3, or 4 are rounded down.

	80		50		40		10	
10		20		70		80		
	60		70		40		30	
20		30		60		90		
	70		90		10		20	
30		40		80		70		

SudokuPad: <https://sudokupad.app/yn4fe4j20j>

August 9, 2024: Pyramidal Sudoku

by Bill Murphy

Walkthrough for Round Off Sudoku: <https://youtu.be/wTYhsCgip7s>

So, I had my performance review at my new job yesterday, which was "You're doing amazing, we're taking you off probation and making your end-of-year goals the things you were doing anyway" which is both lovely feedback and also insane considering I spent 4 hours practising using the work embroidery machine to make some DIY band merch. It turned out really cool (even when I screwed it up a bit), but trying to advocate this path makes me sound ridiculous:

"I save money on merchandise by making my own DIY stuff and you can too! All you need is \$10 for a second-hand shirt, three hours of patience, grit and creativity and a \$19000 10-thread embroidery machine"

A little bit of a controversial call today, but I'll pay it: Today's only bonus hat goes to @Paty for **Pyramidal Sudoku!**

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

Normal Sudoku Rules Apply. Digits in each diagonally adjacent "pyramid" must be either the sum or the difference of the two cells diagonally below them in the next row.

(eg. r3c4 must be equal to either the sum or the difference of r4c3 and r4c5.)

Everyone liked this one in testing, but they all needed a second go at it, so this is a 'be careful!' warning!

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

<https://sudokupad.app/xie00w7prm>

August 10, 2024: Quadruples Sudoku

by Philip Newman

Walkthrough of "Pyramidal" by Bill:

<https://youtu.be/JFD-IOUUKGQ>

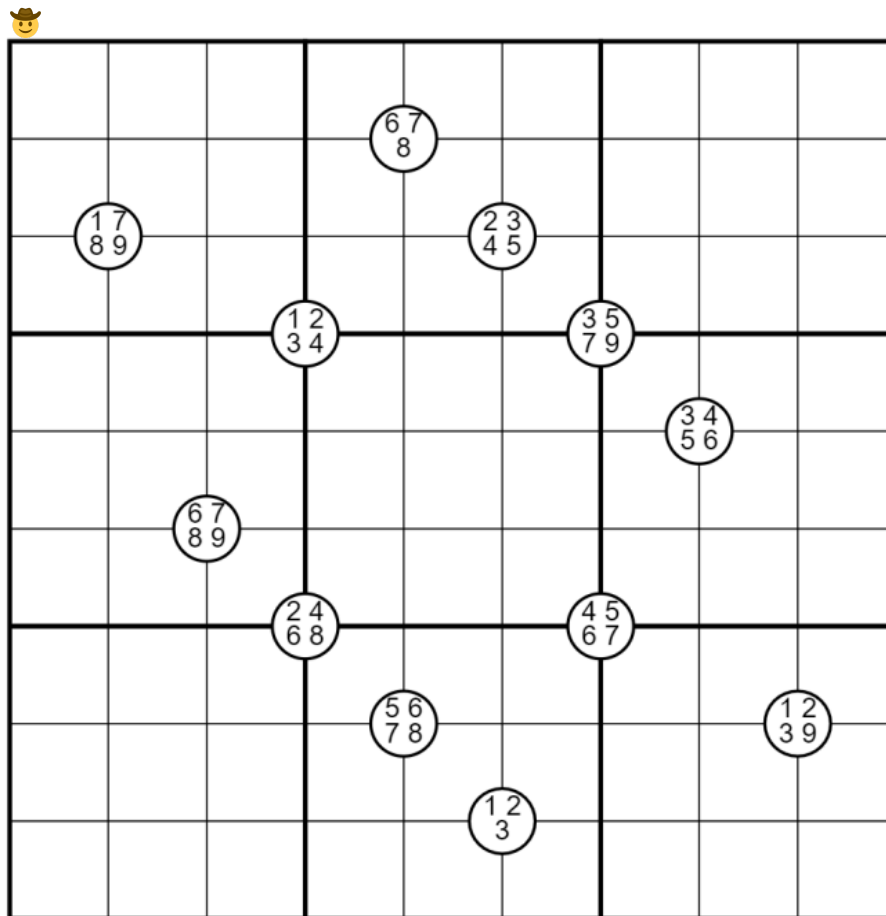
Today's **GAS** is a **Quadruples Sudoku**!

Congrats to @Niverio who recovered from betrayal at the hands of @"Wild Bill" Murphy (patreon?) and gets a bonus hat 🤠!

Commiserations to @Malrog [🐨 wrangler], @Brooks, and @SSGranor who guessed "Quadruple Sudoku" a day early, and would have earned a bonus hat if Bill and I had swapped days like we initially talked about. 🤔 You should have bribed @clover! with a cute 6x6 like Niverio did.

Normal sudoku rules apply.

Quadruples: Digits in corner circles must appear in the surrounding four cells, in some order.



Play on SudokuPad: <https://sudokuapp.philip-newman/20240810-quadruples-sudoku>

Play on f-puzzles: <https://f-puzzles.com/?id=27da4dnu>

August 11, 2024: Elimination Sudoku

by clover!

Walkthrough for Philip's Quadruples sudoku: <https://youtu.be/b5gMJ9iBXHY>

Congratulations to @Haocurious , @malbolgian , and @Brooks for correctly GASsing that today's guess would be **elimination sudoku**! Your bonus hats are brimless today, to eliminate air resistance. 😊

Normal sudoku rules apply. If a digit appears in a cell with an arrow, that digit must not appear again in any of the cells that the arrow points to.

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

SudokuPad: <https://sudokupad.app/20ifnu74m5>

August 12, 2024: The Most Gorgeous Day In History.

by Bill Murphy

Walkthrough for Elimination Sudoku: <https://youtu.be/1YIZ8Z7Gx7E>

Quite often the question comes up: "How do I get better at (Variant) Sudoku?"

Other than "Practice", there's not really a perfect answer, but my small tip is **Remember your Triangular Numbers**, eg. 1, 3, 6, 10, 15, 21, 28, 36, 45.

What's a triangular number? It's when you arrange objects in an equilateral triangle, adding a new one to each layer, eg.

& (1)

&& (1+2 = 3)

&&& (1+2+3 = 6)

&&&& (1+2+3+4 = 10) etc. etc.

&&&&&

&&&&&&

&&&&&&&

&&&&&&&&

&&&&&&&&&

How is it useful? Well, it allows you to spot minimums in Killer Cages, X-Sums, (but also maximums too!) and other math based variants! **You can probably use it for other things too!**

Congratulations to @Niverio @dangernoodle and @Shogia for guessing today's sudoku would be a **Little Killer** Sudoku! Triangular numbers was the inspiration for today's puzzle, but you don't need to have a mastery of them to solve it.

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

Normal Sudoku Rules Apply. Clues outside the grid give the sum of digits along indicated diagonals.

									10 ↘	10 ↘	13 ↘	8 ↘
1 ↗						6						
5 ↗					5	7						
15 ↗					9	2						
29 ↗				1								12 ↙
		8	4									15 ↙
		1	5									15 ↙
		4										9 ↙
									↖ 3	↖ 8	↖ 22	↖ 17

<https://sudokupad.app/6xhtgpdgwc>

August 13, 2024: Column Indexer

by Philip Newman

Walkthrough of "The Most Gorgeous Day In History." by Bill:

<https://youtu.be/aD94m5Czv6A>

Today's **GAS** is a **Column Indexer Sudoku**!

Since I am the kindest, nicest, and most *understanding* GAS setter, obv, I will award a bonus hat 🧢 to @I_Love_Legos for the *overspecified* guess of 159. Could I have set a Column Indexer puzzle for today using columns 159? Sure. Is there a reason I didn't? *Maaaaaaaaybe*

Normal sudoku rules apply.

Column Indexer: The cells marked in red are column indexers; if a digit **D** in a red cell is in column **C** in its row, then digit **C** is in column **D** in the same row. (All cells in columns 2, 4, 6, and 8 are column indexers.)

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

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240813-column-indexer>

Play on f-puzzles: <https://f-puzzles.com/?id=232vbd62>

August 14, 2024: Number 5 Is Alive

by clover!

edit: here's the walkthrough, sorry for the delay!

<https://www.youtube.com/watch?v=77-QTAwcQ3g>

Walkthrough is a bit delayed today, my apologies!

No correct guesses again today, alas. Keep making my job easy and my head heavy with hats



Today's GAS is a **number 5 is alive** sudoku! This GAS, with a slight change, could easily be posted three days from now as well. Heck, maybe I will. 😊

Normal sudoku rules apply. Digits do not repeat within cages. Within each cage, the sum of the digits is either 5, 15, 25, 35, or 45.

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

SudokuPad: <https://sudokupad.app/xyx3ymmsj>

August 15, 2024: Odd-Even-Big-Small Sudoku

by Bill Murphy

Walkthrough for Number 5 is Alive: <https://youtu.be/T7yfce1NLmY>

Girlfriend flew out to Bali today, so you know what that means: Time to eat two oversized samosas for dinner to avoid making any more dishes so I can finally catch up. (Trying to find the time to reward myself for good behaviour by jamming some 'Thank Goodness You're Here' before bed tonight)

Congratulations to @Malrog [🐾wrangler] and @Calump who absolutely cold clocked me as the sort of person who would do an Odd-Even-Big-Small Sudoku on the 15th. For those of you who've been wondering what we're going to do in the back half of the month, you should ask Philip tomorrow.

Normal 8x8 Sudoku Rules Apply. The clues outside the grid indicate that the first two cells in the corresponding direction must contain numbers matching the description.

Odd = {1, 3, 5, 7}; Even = {2, 4, 6, 8}; Big = {5, 6, 7, 8}; Small = {1, 2, 3, 4}.

	Odd	Even	Small		Big	Odd	Even	
Big								Small
Small				5	4			Big
Big								
Odd								
								Even
								Small
Big				8	1			Small
Even								Odd
	Big							Small

<https://sudokupad.app/wz2fxx849g>

August 16, 2024: No Even Neighbours

by Philip Newman

Walkthrough of "Odd-Even-Big-Small" by Bill:

<https://youtu.be/hKJiSsbe0ko>

Today's **GAS** is a **No Even Neighbours Sudoku**! If Bill (or a certain *Mr. Cappleman-Lynes*) had been posting today, perhaps you would have anticipated a choice of a sudoku variant with a spelling variant. I might be in Texas now, but I lived in the UK for four years and sometimes those extra 'u's just slip in. If clover were posting this variant tomorrow, would she would have spelled it the American way? Hmm.

Normal sudoku rules apply.

No Even Neighbours: Digits in orthogonally adjacent cells cannot both be even.

(For example, 6 cannot be placed in r1c2 because it would be adjacent to the 2 in r2c2.)



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

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240816-no-even-neighbours>

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

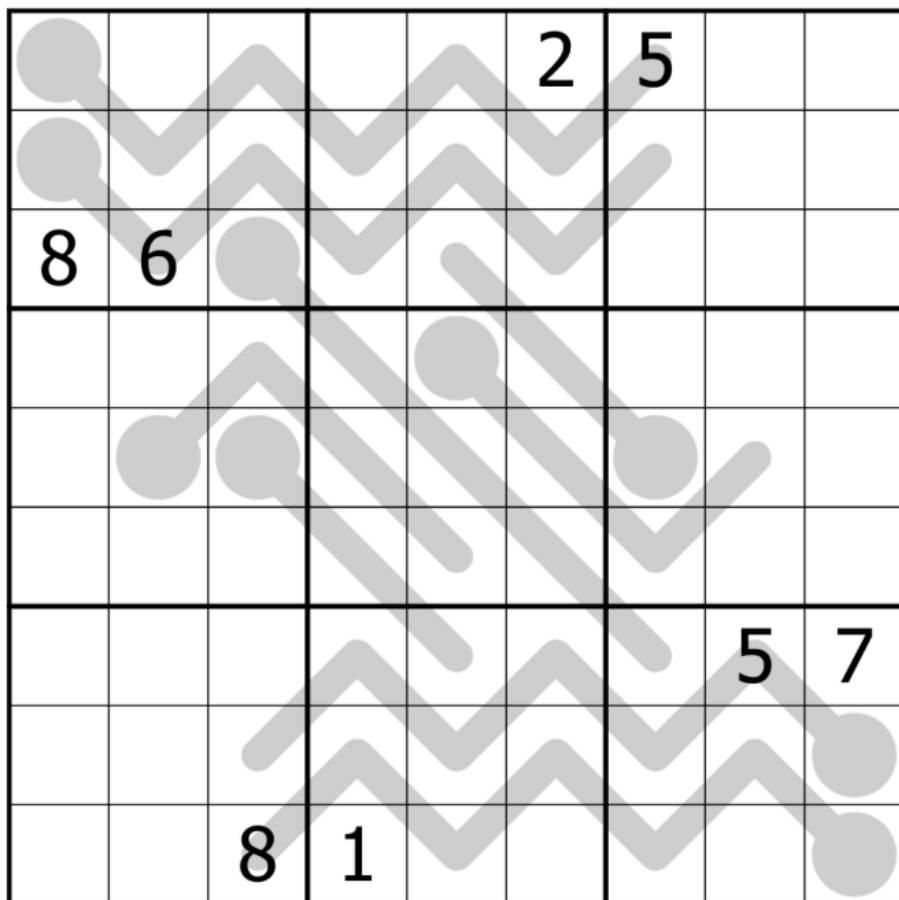
August 17, 2024: Slow Thermometer

by clover!

Walkthrough for Philip's "No Even Neighbours": <https://youtu.be/7S9a8gnEcpE>

Today's GAS is a **slow thermometer** sudoku. Not a slow thermo; not slow thermometers, but just one, fully spelled-out, slow thermometer. No guessers today, better luck tomorrow!

Normal sudoku rules apply. Digits along thermometers must either increase or stay the same, starting from the round bulb.



SudokuPad: <https://sudokupad.app/54b36ss3hv>

August 18, 2024: Nonconsecutive Sudoku

by Bill Murphy

Walkthrough for Slow Thermometer: <https://youtu.be/EyY1h7TaDR0>

Today's Nonconsecutive Sudoku (Congratulations to @Mornicus and @SSGranor on bonus hats), started by me looking for, because I'm not a large fan of global constraint puzzles, if I was trying to teach someone some tricks on how to solve these, what would I show them?

As it turns out, the finished product had all of them. Which is fine, but it's normally a lil more than I shoot for! But hey, I hope y'all have a lot of fun with this one.

p.s. now that you know how the back half of the month is playing out w/ our pattern, my two notes are we're not repeating variants and we're not doing multi-variant puzzles. Hope that helps.

Normal Sudoku Rules Apply. Consecutive digits may not be orthogonally adjacent to each other.

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

<https://sudokupad.app/7187i5dsdp>

August 19, 2024: Dutch Whispers

by Philip Newman

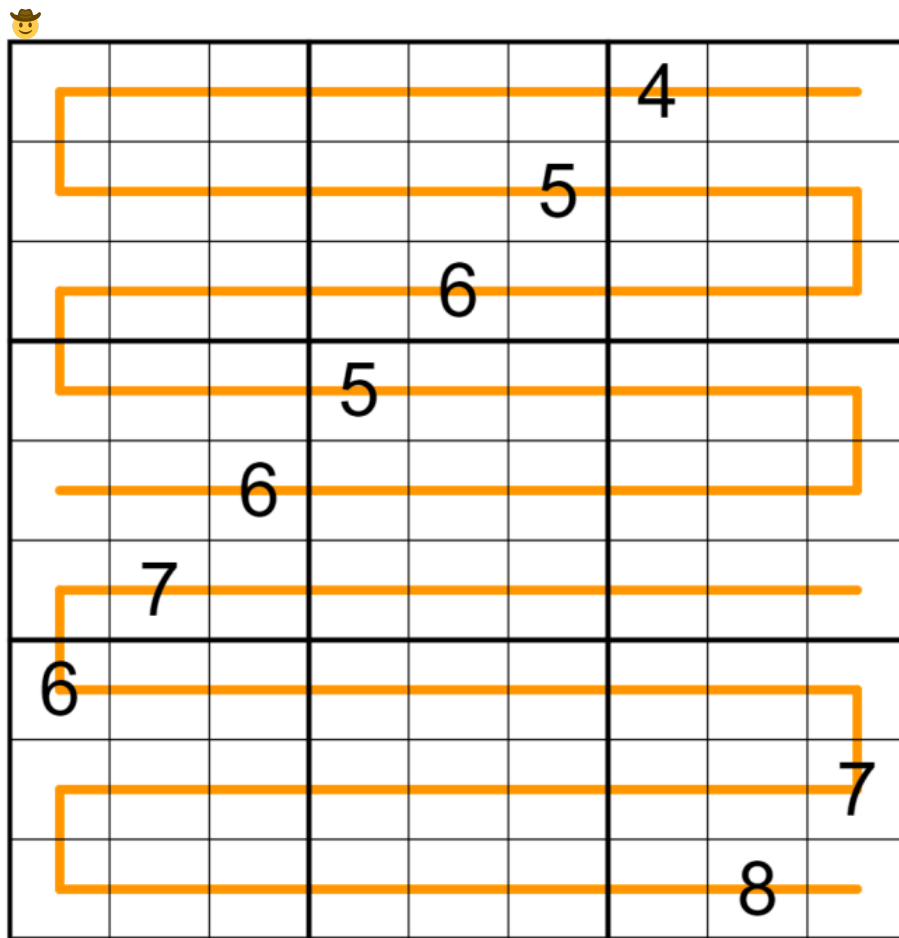
Walkthrough of "Nonconsecutive Sudoku" by Bill:

https://youtu.be/yhv6_ijamzk

Today's **GAS** is a **Dutch Whispers Sudoku**! Look how orange it is! Bonus hats 🧑 to @Cow, @Malrog [🐮 wrangler], @Calump, @Ryan, @Aesewesen 🐘, and @Mornicus for guessing correctly! So many hats! And exclamation marks!!

Normal sudoku rules apply.

Dutch Whispers: Digits in cells directly connected by a line must differ by at least 4.



Play on SudokuPad: <https://sudokupad.app/philip-newman/20240819-dutch-whispers>

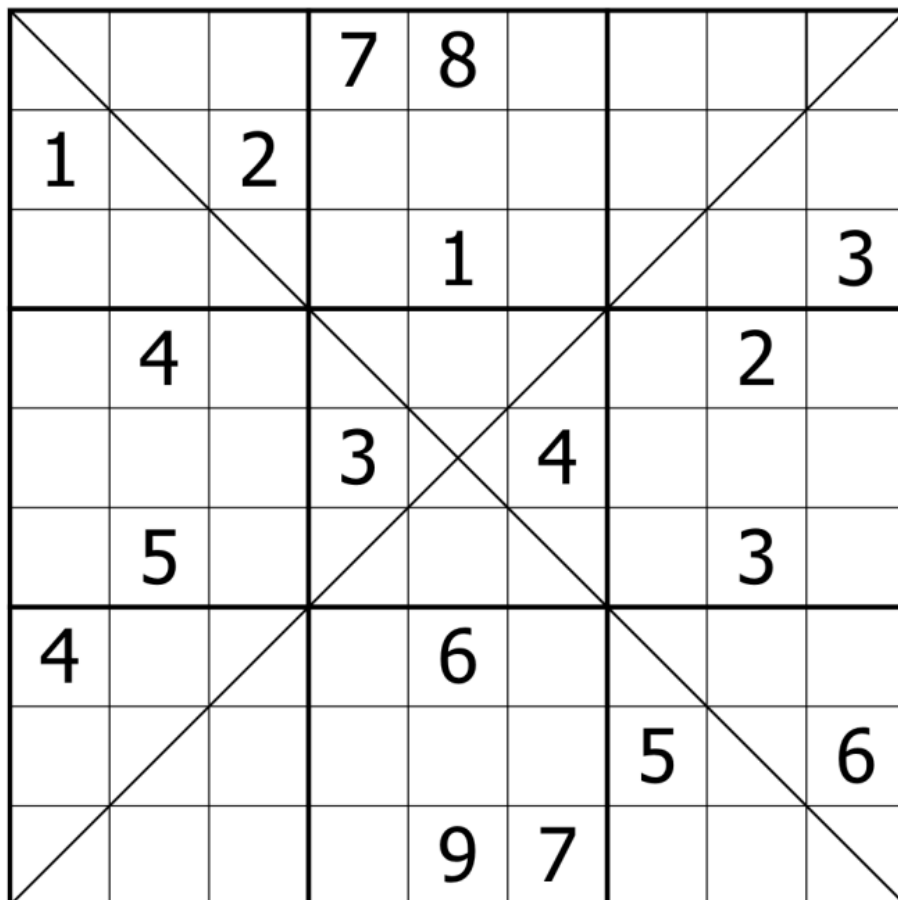
Play on f-puzzles: <https://f-puzzles.com/?id=29dcyz78>

August 20, 2024: Antidiagonal
by clover!

Walkthrough for Philip's "Dutch Whispers": <https://youtu.be/fDbp4gzsJbM>

And a consolation hat to @malbolgian for guessing the right variant on the wrong day! Today's GAS is an **antidiagonal sudoku**. Normal sudoku rules apply. Also, each marked diagonal contains exactly three different digits (such as 3, 7, and 8).

By the way, a consolation hat is a hat that pats you very gently on the shoulder when you're having a lousy day.



SudokuPad: <https://sudokupad.app/28e2g702kz>

Skyscraper

by Bill Murphy

Walkthrough for Antidiagonal: <https://youtu.be/vXRsoPTycv8>

It's time for me to tackle **Skyscrapers** properly (and not just the pile of dishes in the sink, am i right, @Calump @SMmarcus100 (603 🎩 524 🧐 64 🐸 55 🧐) @MikoKisai @Malrog [🐉 wrangler]? (Bonus Hats for the lot of you))

Last time I did Skyscrapers was very memey ([#daily-sudoku-puzzles](https://twitter.com/daily-sudoku-puzzles)) and we don't do Skyscrapers a lot, because the variant is absolutely on the fringe of acceptable difficulty (IMO), so I'm throwing open the sketch book a little. Once I figured out the idea of what I wanted to do, it took me several attempts to get the vibe right! I'm throwing a bonus one out today, it's a perfectly good puzzle, but I hold myself to a standard, especially when it's a challenging idea for new solvers. So in an attempt to show my work, here's an additional puzzle today:

<https://sudokupad.app/cdk8kenvvz>

There's no bonus hat for it, but if it helps someone because they want to either a) get better at setting, b) have a practice before solving today's GAS, it's here for you.

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

Normal sudoku rules apply. Consider each digit in the grid as a building of that height. Clues outside the grid give the number of buildings that can be seen from that direction, with larger buildings hiding smaller ones.

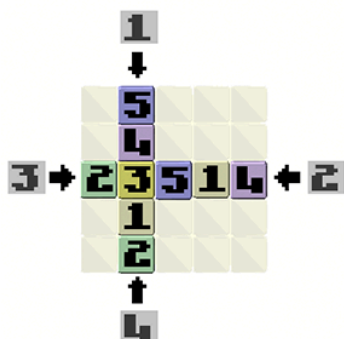
If you're new to Skyscrapers, then there's an attached image which might help!

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

The Actual Puzzle: <https://sudokupad.app/t91if3lwol>

N.B.: I attached the wrong image to this puzzle and deleted it, rather than double ping a lot of people. The attached puzzle is correct.

[Note from typesetter: I re-added the image. The above one is the correct puzzle.]



August 22, 2024: Palindrome

by Philip Newman

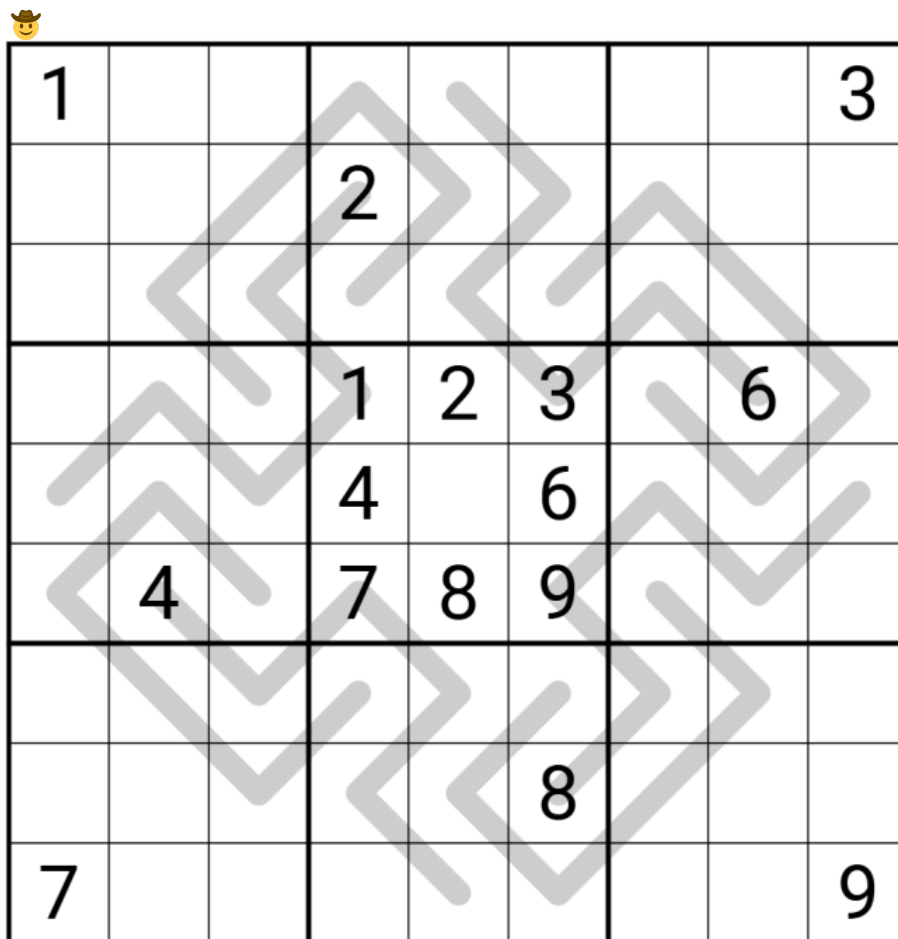
Walkthrough of "Skyscraper" by Bill:

<https://youtu.be/kufJEnMHktA>

Today's **GAS** is a **Palindrome Sudoku**! Congrats to @Calump, @joeyvienna, @SMmarcus100 (603🎩524🐱64🐸55👨), @SSGranor, @Aesewesen 🐘, and @ConManAU (FINALLY), grab yourselves a bonus hat 🤠!

Normal sudoku rules apply.

Palindrome: Digits along a line must form a palindrome (read the same from either direction).



Play on SudokuPad: <https://sudokupad.app/philip-newman/20240822-palindrome>

Play on f-puzzles: <https://f-puzzles.com/?id=298lnokr>

August 23, 2024: Up and Down

by clover!

Walkthrough for "Palindrome" by Philip:

<https://youtu.be/uMds085G0bw>

No guessers today. The level of guess success (succ-guess?) has truly been **up and down** (sudoku).

Normal sudoku rules apply. Along each line, digits alternate between increasing and decreasing (for instance, 3 7 2 5 4 9).

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

SudokuPad: <https://sudokupad.app/cn2rs06zgn>

August 24, 2024: They Want My Soul

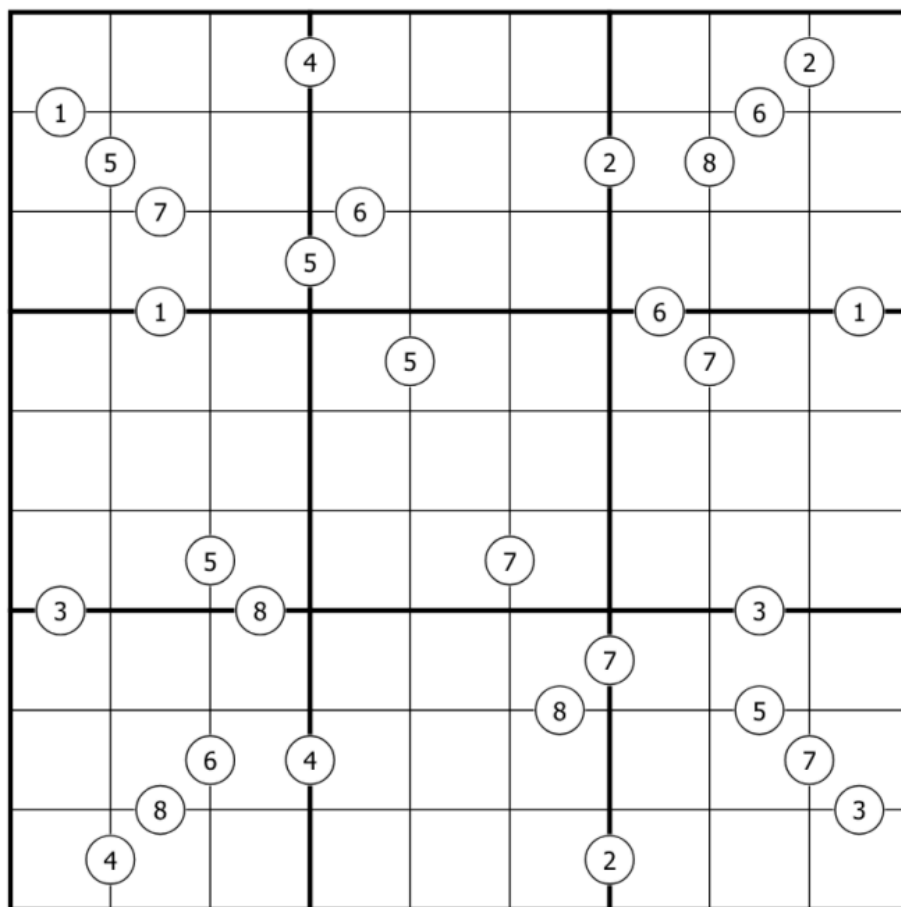
by Bill Murphy

Walkthrough for Up and Down: [https://youtu.be/VGak4RlpQzk?si= NM64vjHac6pYrvG](https://youtu.be/VGak4RlpQzk?si=Nm64vjHac6pYrvG)

I'm at a wedding today, so I'm being very quick and early. No bonus hats, today's GAS is **Either Or** Sudoku!

(I don't feel bad, there's very few choices for my last two puzzles for August and I put a FOW in GAS testing for all of you yesterday, I am a man of the people after all)

Normal Sudoku Rules Apply. Digits in white circles must appear in either of the cells it overlaps



<https://sudokupad.app/1koebms17p>

August 25, 2024: Hashtag

by Philip Newman

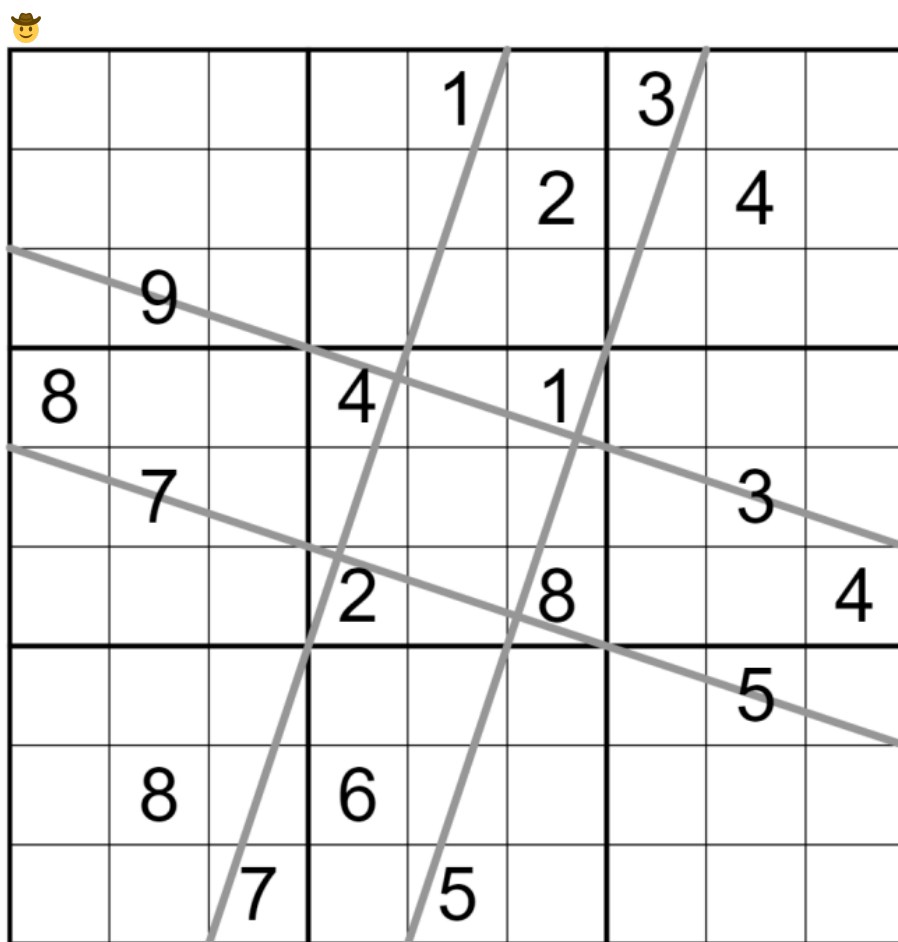
Walkthrough of "They Want My Soul" by Bill:

<https://youtu.be/Sc1-BtCCSPY>

Today's **GAS** is a **Hashtag Sudoku**! They Want My Hats, but they can't have them!

Normal sudoku rules apply.

Hashtag: Digits along the indicated diagonals cannot repeat.



Play on SudokuPad: <https://sudokupad.app/philip-newman/20240825-hashtag>

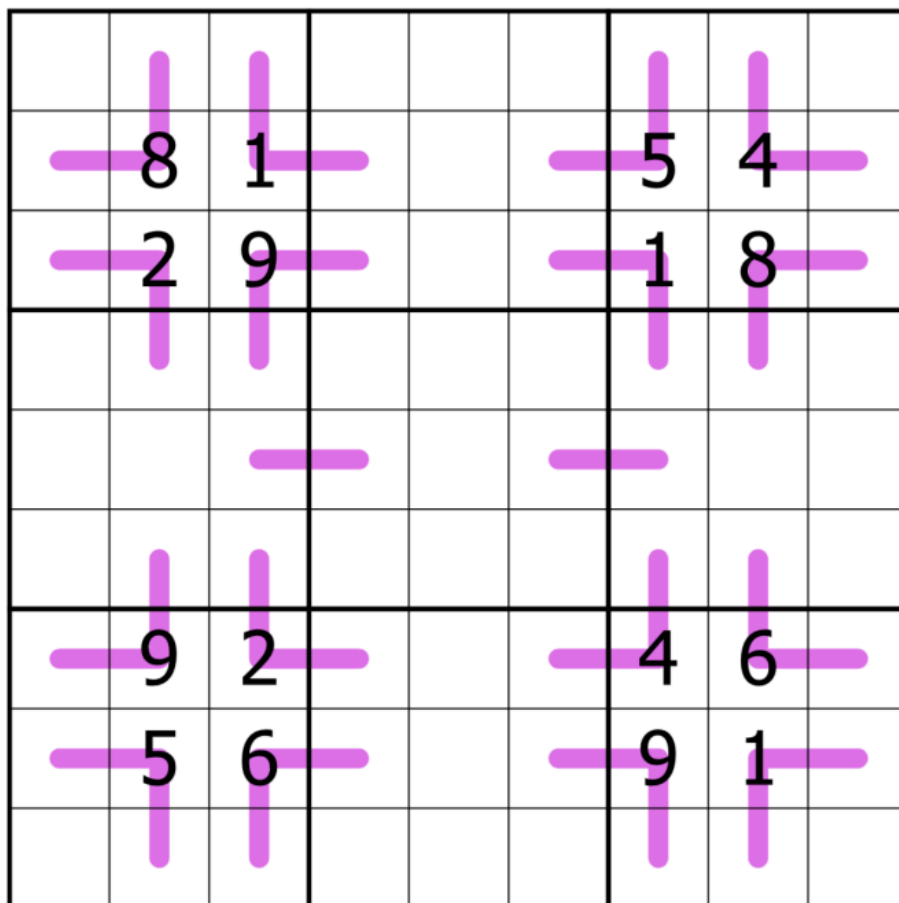
Play on Penpa+: <https://tinyurl.com/8f6yi8rf>

August 26, 2024: Renban
by clover!

Walkthrough of "Hashtag" by Philip: <https://youtu.be/TFzIYi3m9Fc>

Renban, short and to the point today. Just like today's puzzle name (if you know you know).

Normal sudoku rules apply. Each pink line contains a set of consecutive digits in any order, such as 243 or 879.



SudokuPad: <https://sudokupad.app/paf8jym299>

August 27, 2024: Picture Me Better

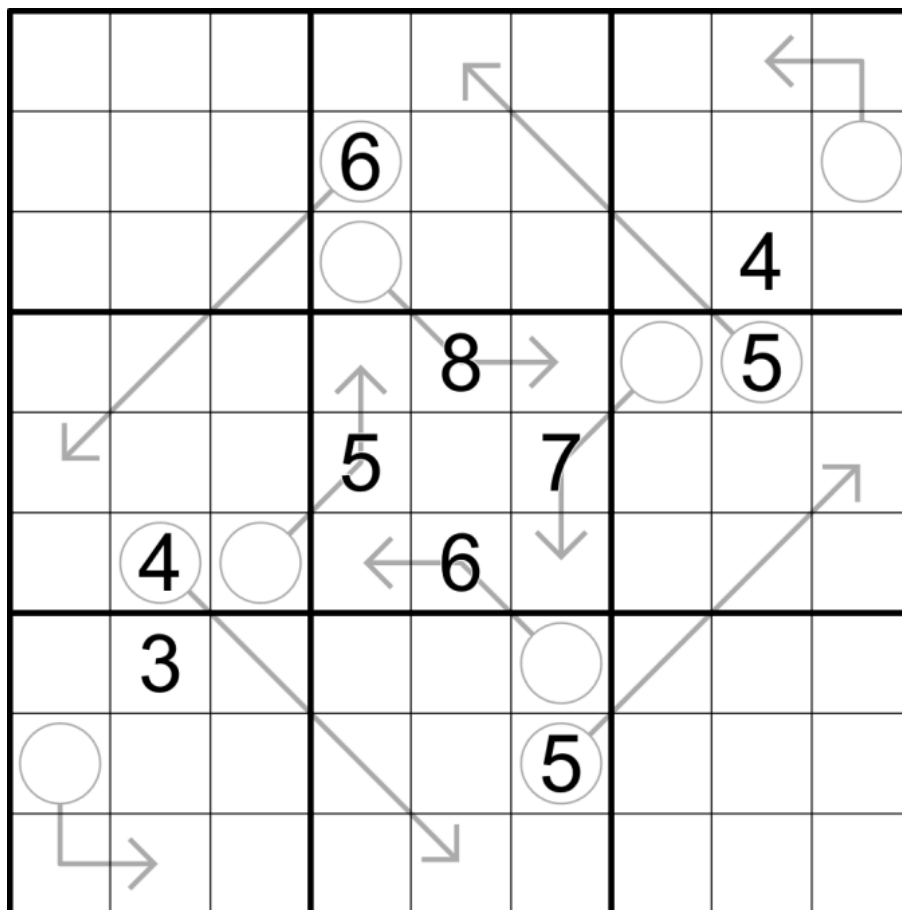
by Bill Murphy

I did do an **Arrow Sudoku** specifically so I could hand out some hats today, so let's do it, congratulations to @MikoKisai @Mornicus @DiMono @atroposhears @George @Shogia @NikitozishGood @nocturnerazor

I've had a bunch of kids come to use some VR with me the last couple of days and we've been using Universe Sandbox. Now if you haven't used the program before, it's just a giant simulation of the universe where you can add, delete and modify stuff in the universe, but it's a cool fun thing that's very resource heavy. But every student's favourite objects to add are just the random objects you can put into space, like watermelons, pigeons and a *spherical cow*, which is every student's favourite.

Now, we'd heard the "cow jumped over the moon" one before, but today was the first day a student flung 30+ cows into orbit and as the program traced their orbits across the sky, they yelled "Sir, look, it's the Milky Way" and that absolutely cleaned me up.

Normal Sudoku Rules Apply. Digits along arrows must sum to the digit in the bulb.



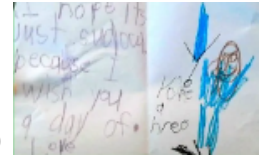
<https://sudokupad.app/lez07c5znd>

August 28, 2024: Trio

by Philip Newman

Walkthrough of "Picture Me Better" by Bill:

https://youtu.be/BMLXzw_1gUs (explanation of thumbnail in the description)

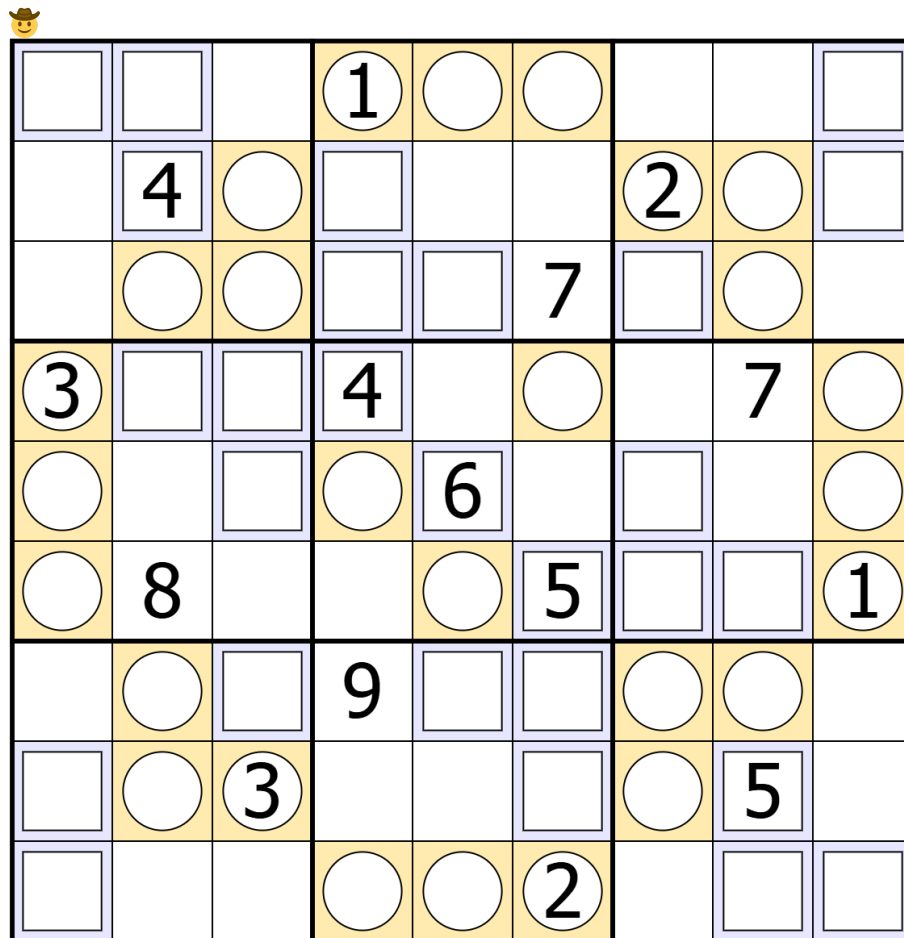


Today's **GAS** is a **Trio Sudoku**! Bonus hats 🧢 to @Calump, @MikoKisai, @SMmarcus100 (603 🧢 524 🧢 64 🧢 55 🧢), @BlackBird_6, and @Cow (despite not being a huge fan)!

Normal sudoku rules apply.

Trio: The digits 1, 2, and 3 are marked with orange circles; the digits 4, 5, and 6 are marked with blue squares.

WARNING This is the shortest two hat time we have ever had for a 9x9. Do some stretches before you start solving, you don't want to sprain your brain. [Note from typesetter: the times are as always in the table at the end of this document]



Play on SudokuPad: <https://sudokupad.app/philip-newman/20240828-trio>

Play on f-puzzles: <https://f-puzzles.com/?id=2baha8sg>

August 29, 2024: Hex Sudoku

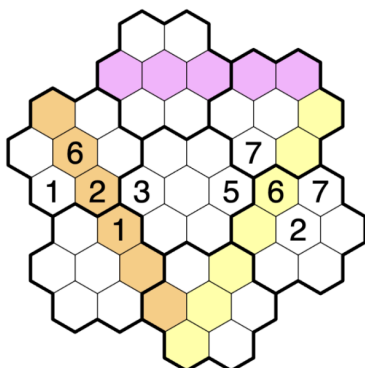
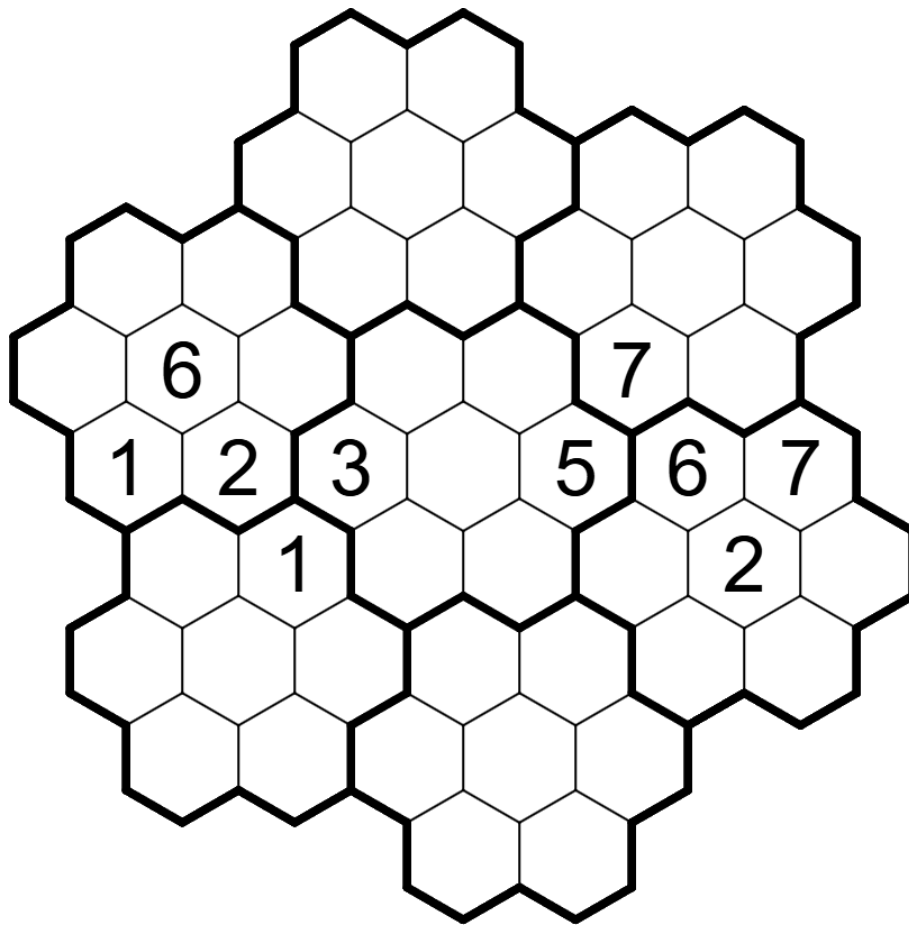
by clover!

Walkthrough for "Trio" by Philip: https://www.youtube.com/watch?v=D3TstBpo_-Q

And a big round of applause to @Cow for our sole successful guess of today's **Hex Sudoku**! If you don't care for Penpa, you can thank Cow for manifesting this puzzle for you. 🥳

Fill the grid with the digits 1-7, so that each outlined 7-cell region contains each digit exactly once, and digits never repeat in "rows" or "columns".

There's an image attached to this post showing 'rows' and 'columns' (there are three types of them, not the usual two), so please check that out before you begin!



Penpa+: <https://tinyurl.com/24omf5r3>

August 30, 2024: LC Sudoku

by Bill Murphy

Walkthrough for Hex: <https://youtu.be/KYczXGK6sOg>





Yeah, there was only two possible options for today after Clover took the easiest one, so listen. If you said today would be a 3D sudoku, you can absolutely have half a hat, because I have spent a bunch of time this month trying to GAS it only to come to the conclusion that it's just Hex Sudoku again. So sadly, that's not what today is, but you can have a bonus half a hat for it. Like a Sun Visor or something.

(Specifically for the two of you who said I was going to do it because we could double down on penpa, you absolutely called my energy correctly, but I'm doing a home sleep test tonight and if I blow out the equipment with the sheer force of my hater energy I'm out \$7500 so I'm being well behaved)

So yes, today is a **LC Sudoku**! Bonus hats for @Mornicus @Cow @DiMono @goldilocks @Aesewesen 🐘 @Calump!

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

Normal Sudoku Rules Apply. Highlighted cells separated by an L or a C form two two-digit numbers that when added together sum to 50 (L) or 100 (C). Not all Ls or Cs are necessarily given.

  **Please Note: This is not really a standard LC Sudoku and the ruleset has been modified to GAS it. If you want a standard LC Sudoku, there was one in last month's GAS Leak**  

	1	C	2					
			L					C
4			2					6
				5				
					1			8
8						L		
C								
						3	C	4

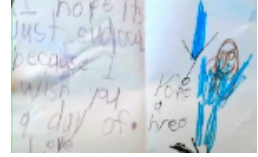
<https://sudokupad.app/9xn8ttjor2>

August 31, 2024: A Sudoku

by Philip Newman

Walkthrough of "LC Sudoku" by Bill:

<https://youtu.be/gLXWwigSFpE> (explanation of thumbnail in the description)



This is it, the last **GAS** of our third annual August guessing game! To keep the suspense going just a tiny bit longer, I suggest you click on the puzzle link below before reading any of the spoilers.

[See the spoiled text on the „Hints and Spoilers“ page at the end of this document]

Normal sudoku rules apply.

[See the spoiled text on the „Hints and Spoilers“ page at the end of this document]

[Note from typesetter: as the image for the puzzle was spoiled in the original post on Discord I put it on the next page.]

Normal sudoku rules apply.



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

Play on SudokuPad: <https://sudokupad.app/philip-newman/20240831-click-to-find-out>

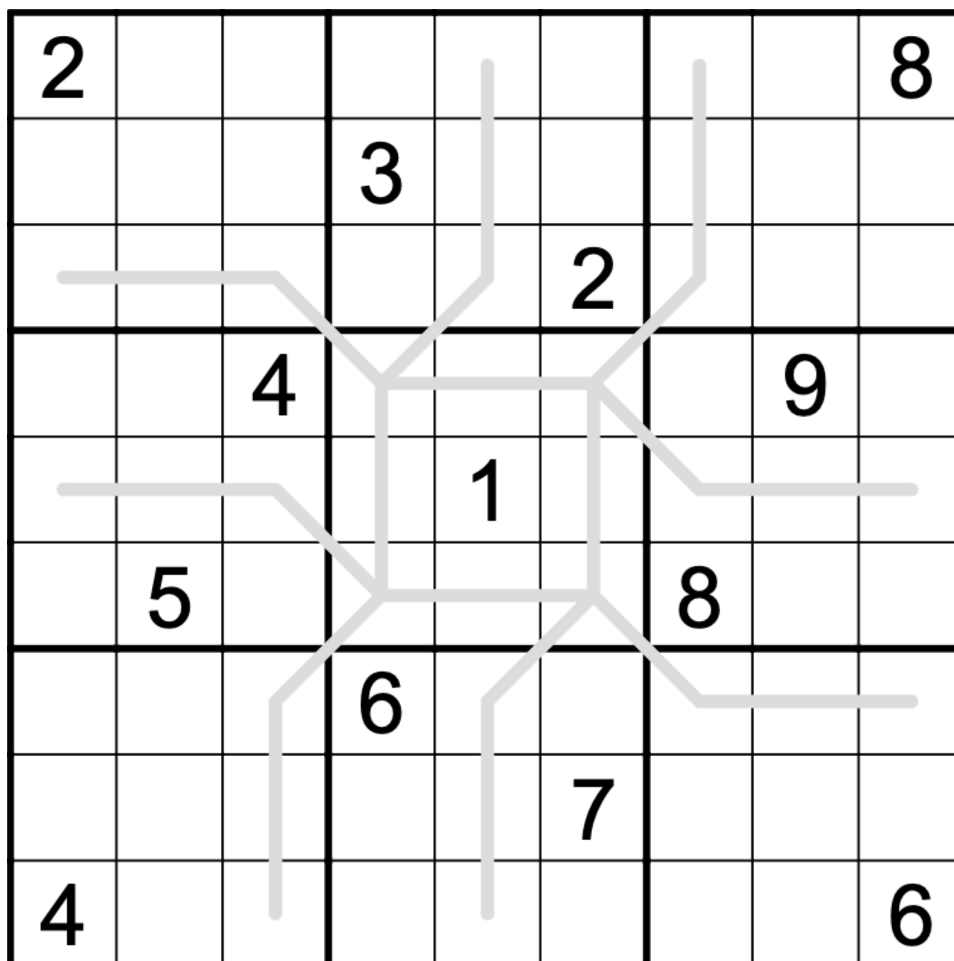
Play on f-puzzles: <https://f-puzzles.com/?id=28egbxjw>

Bonus 1: Hashtag

Philip Newman

Normal sudoku rules apply.

Hashtag: Digits along the marked lines cannot repeat.

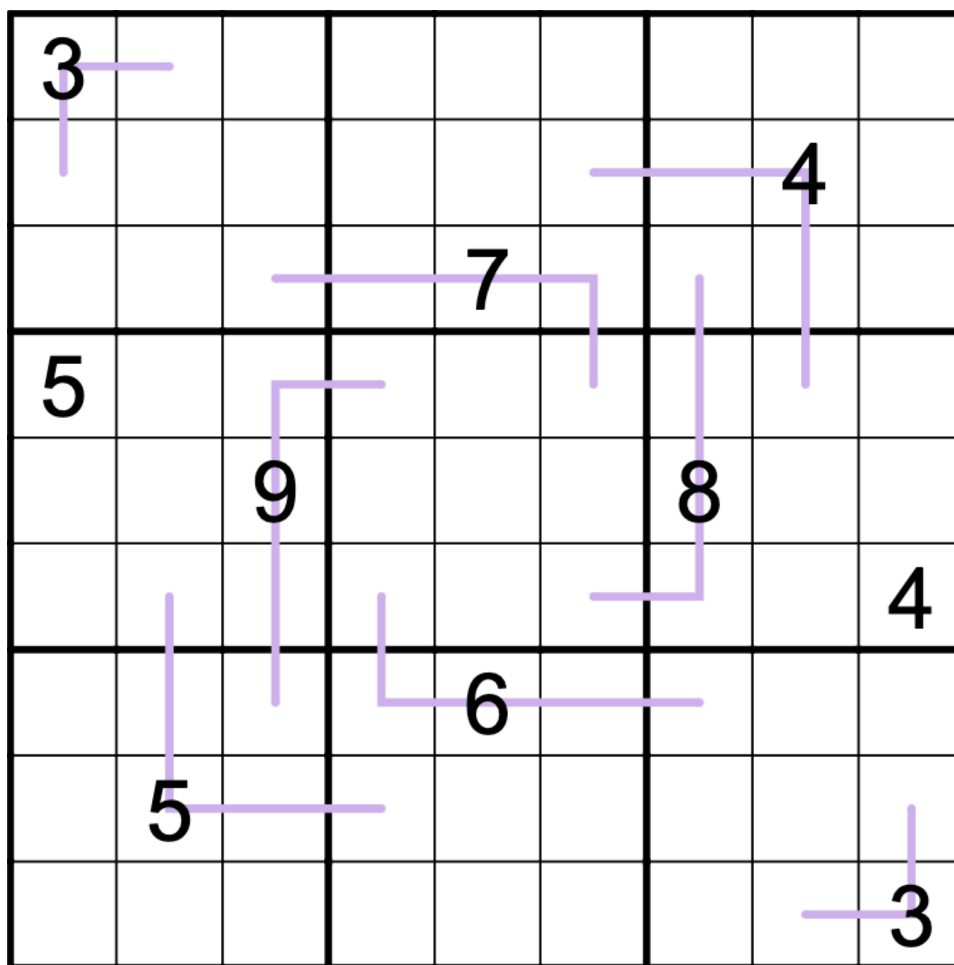


<https://sudokupad.app/x8na73pfbs>

Bonus 2: Zipper Lines

Philip Newman

Normal sudoku rules apply. Along each line, every pair of digits that are equally distant from the center cell on the line, must sum to whatever value appears in that center cell. For instance, $r3c4 + r3c6 = 7$, and $r3c3 + r4c6 = 7$.



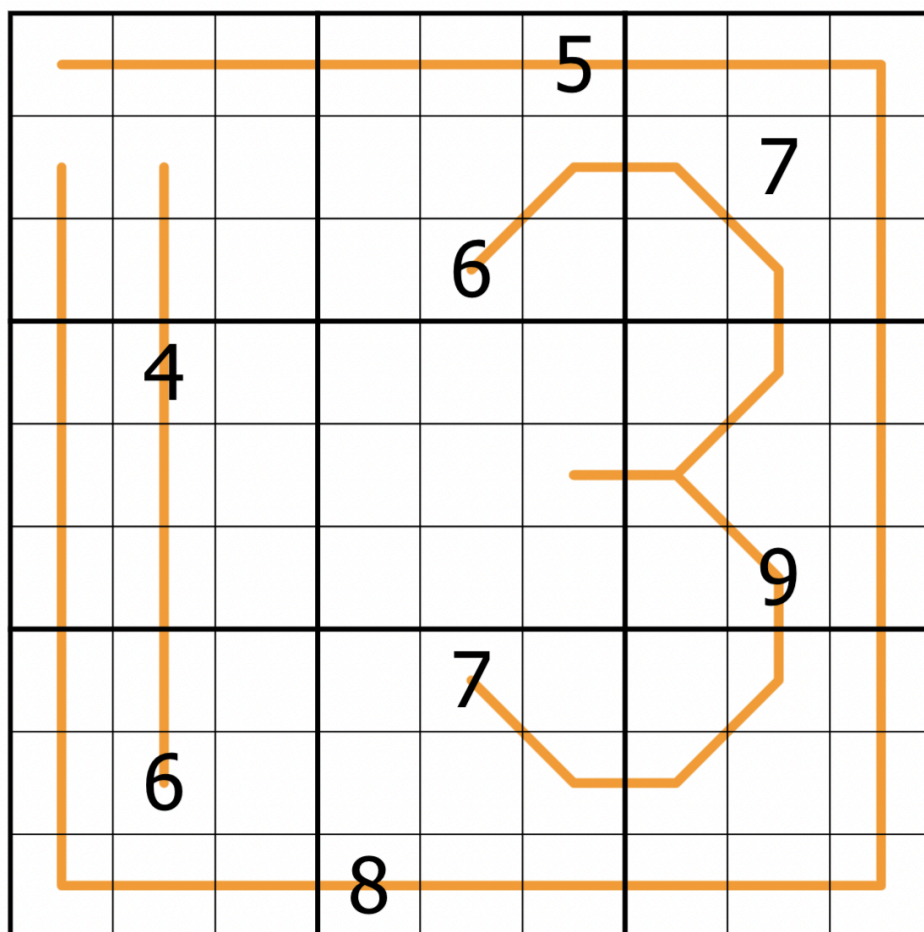
<https://sudokupad.app/yacyceao2d>

Bonus 3: Dutch Whispers

Philip Newman

Normal sudoku rules apply.

Dutch Whispers: Digits in cells directly connected by a line must differ by at least 4.



<https://sudokupad.app/7ea7ltq2fg>

Clover

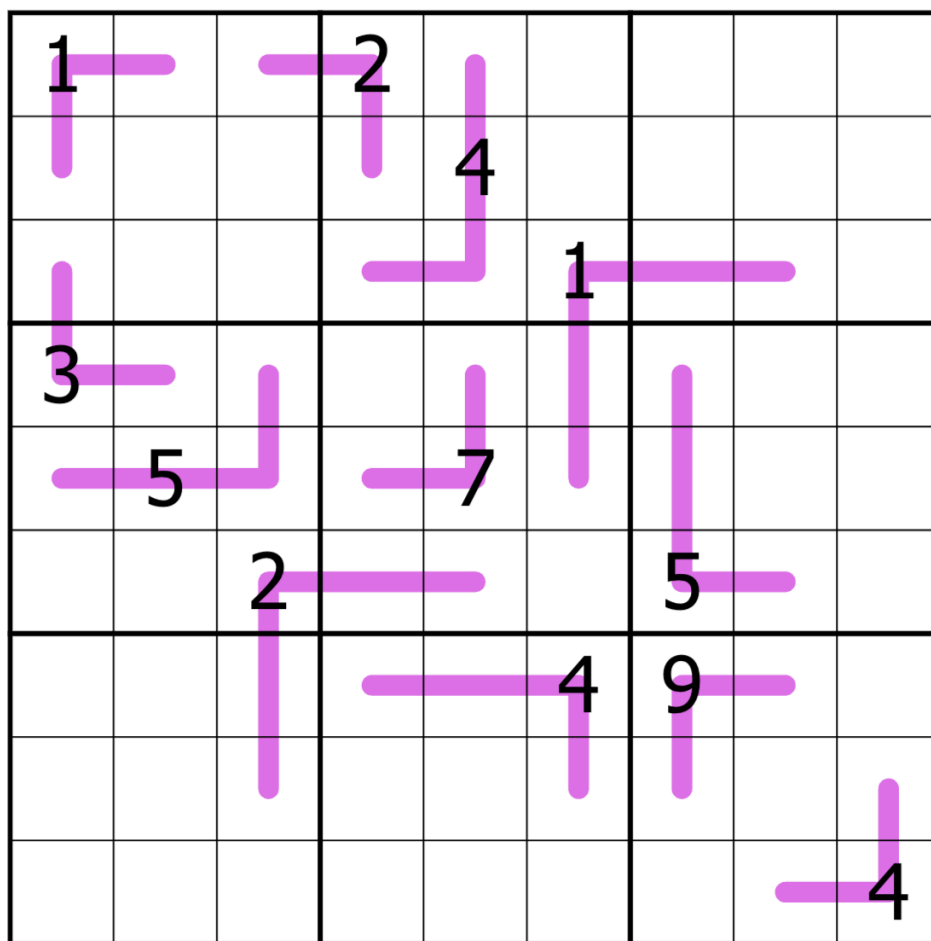
		2		4		6				
		4		6		8				
		6		8		2				
		8		2		4				

<https://sudokupad.app/vopfz7bplh>

Bonus 5: Renban Sudoku

Clover

Normal sudoku rules apply. Each pink line contains a set of consecutive digits, which may appear in any order (such as 2435).



<https://sudokupad.app/64c5akm83c>

Time Benchmarks

	 Two party hats	 One party hat	 Todays dinosaur:
Aug 1, 2024	7:30	14:00	Camarasauromorph called Calump
Aug 2, 2024	7:00	13:00	xv Yi
Aug 3, 2024	6:30	12:00	Unusual Uberabatitan
Aug 4, 2024	8:00	15:00	Even-legged Epachthosaurine
Aug 5, 2024	7:00	13:00	tacit Talos
Aug 6, 2024	7:30	14:00	Hidden Hexinlusaurus
Aug 7, 2024	6:30	20:00	Devious Diplodocimorph
Aug 8, 2024	7:30	14:00	babbling Baryonyx
Aug 9, 2024	8:30	15:00	Triangular Tethyshadros
Aug 10, 2024	7:30	15:00	Quadrupedal Qinlingosaurus
Aug 11, 2024	7:30	14:00	appropriate Arcovenator
Aug 12, 2024	7:00	13:00	Scalene Scansoriopteryx
Aug 13, 2024	7:30	15:00	Red-striped Rinconsaur
Aug 14, 2024	9:00	17:00	butterfingered Brachyceratops
Aug 15, 2024	6:30	12:00	Bath Barapasaurus
Aug 16, 2024	7:00	13:00	Tea-drinking Turiasaur
Aug 17, 2024	8:00	15:00	accelerationist Adeopapposaurus
Aug 18, 2024	8:00	15:00	Electrodynamic Eobrontosaurus
Aug 19, 2024	6:30	13:00	Colourful Campananeyen [*]
Aug 20, 2024	6:30	12:00	laparoscopic Lambeosaurus
Aug 21, 2024	7:00	13:00	Drafted Dryptosaurus
Aug 22, 2024	6:30	13:00	Glum Hippo Gravisaurian
Aug 23, 2024	8:30	16:00	ultrafine Unenlagia
Aug 24, 2024	8:00	15:00	Very Intoxicated Velociraptor
Aug 25, 2024	7:30	15:00	#nofilter Nurosaurus
Aug 26, 2024	7:00	13:00	shrewd Shanag
Aug 27, 2024	7:00	13:00	rotund Rinchenia
Aug 28, 2024	3:00	10:00	Memetic Microdontosaurus
Aug 29, 2024	5:00	9:00	mad Mei
Aug 30, 2024	7:00	13:00	Snoring Sinosaurus
Aug 31, 2024	7:00	22:00	Likeable Lancanjiangosauru

[*] (🔴 New sauropod alert! 🔴 *Campananeyen fragilissimus* was named in 2024 after the incomplete skeleton was described in 2016 but not named. The 'neyen' ending is from the Mapundungun word *n'eyen*, which means "air". You can probably guess what the specific name means.)

Hints and other spoiledred texts

Spoiler for August 1, 2024

WELCOME to [redacted] August, the game show where the points don't matter but the hats do.

Spoiler for August 31, 2024:

Obviously this was a bit cheeky. 😊 I know some of you might complain that the name for this variant isn't on Bill's list, but to be unfair he never said my titles came from that list.

I suppose a mean setter like clover or Bill would award no bonus hats today... but instead, I will let you decide! If you think everyone should get a bonus hat (because technically everyone guessing did guess that there would be a Sudoku today...) go give today's solve video a like. If it gets to 100 likes before tomorrow's puzzle is posted everyone gets a bonus hat! >_>

Normal sudoku rules apply.

And that's it! I would also have acctped "π" today. madeyalook madeyalook madeyalook madeyalook madeyalook madeyalook