

GAS Leak

Genuinely Approachable Sudoku
from the CtC Discord

Volume 26 “Fan Edition”:
March 1 – March 31, 2023

Hi friends! This month's edition of GAS Leak was helpfully typeset by GAS solver Engy when the GAS team got smacked down by Life Circumstances™. But you shouldn't notice anything different from usual - except, perhaps, the mysterious shye bonus puzzle at the end of this document... ;)

Clover

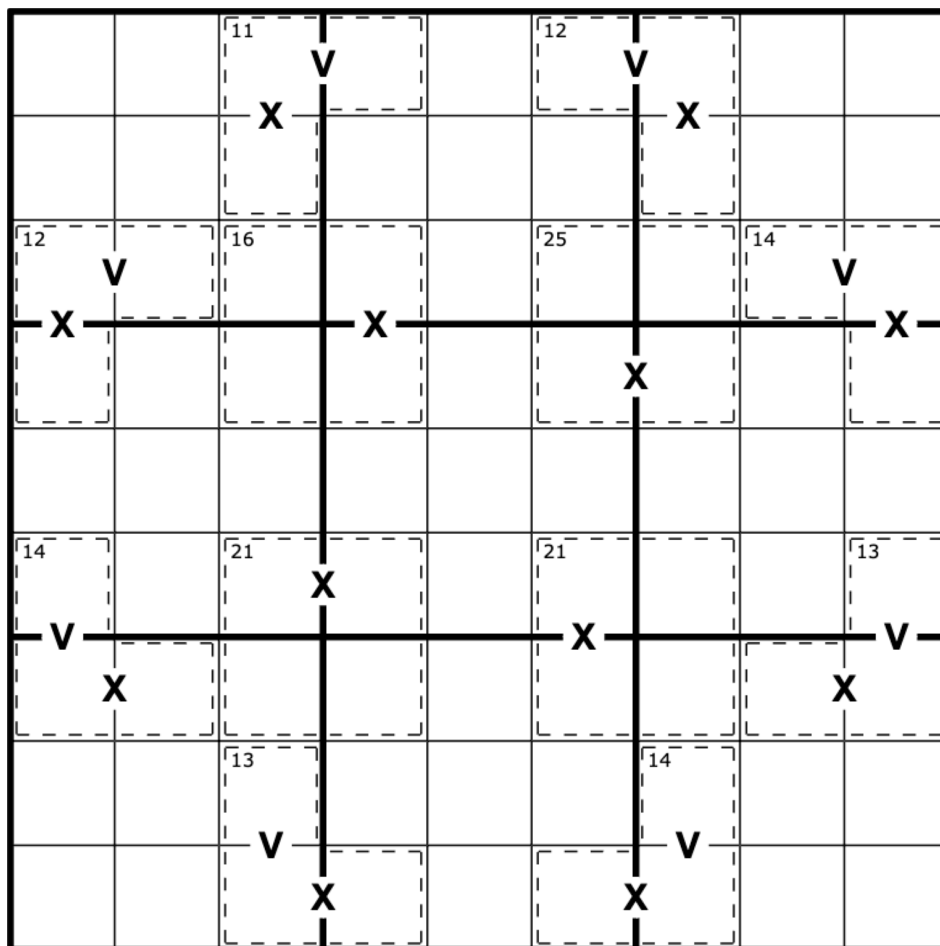
March 1, 2023: XV Killer

Clover

Today's GAS was inspired by a puzzle from a very fun and approachable pack by @Charlie, which can be found here:

<https://discord.com/channels/709370620642852885/741008014349172737/1079137007210610779> Why not solve them after you're done here and see if you can spot the inspiration?

Normal sudoku rules apply. Digits in a cage do not repeat and must sum to the indicated total. Digits separated by a V sum to 5, and digits separated by an X sum to 10. Not all possible Xes and Vs are necessarily given.



f-puzzles: <https://f-puzzles.com/?id=2zuskc2k>

CtC: <https://tinyurl.com/3cv8nwdd>

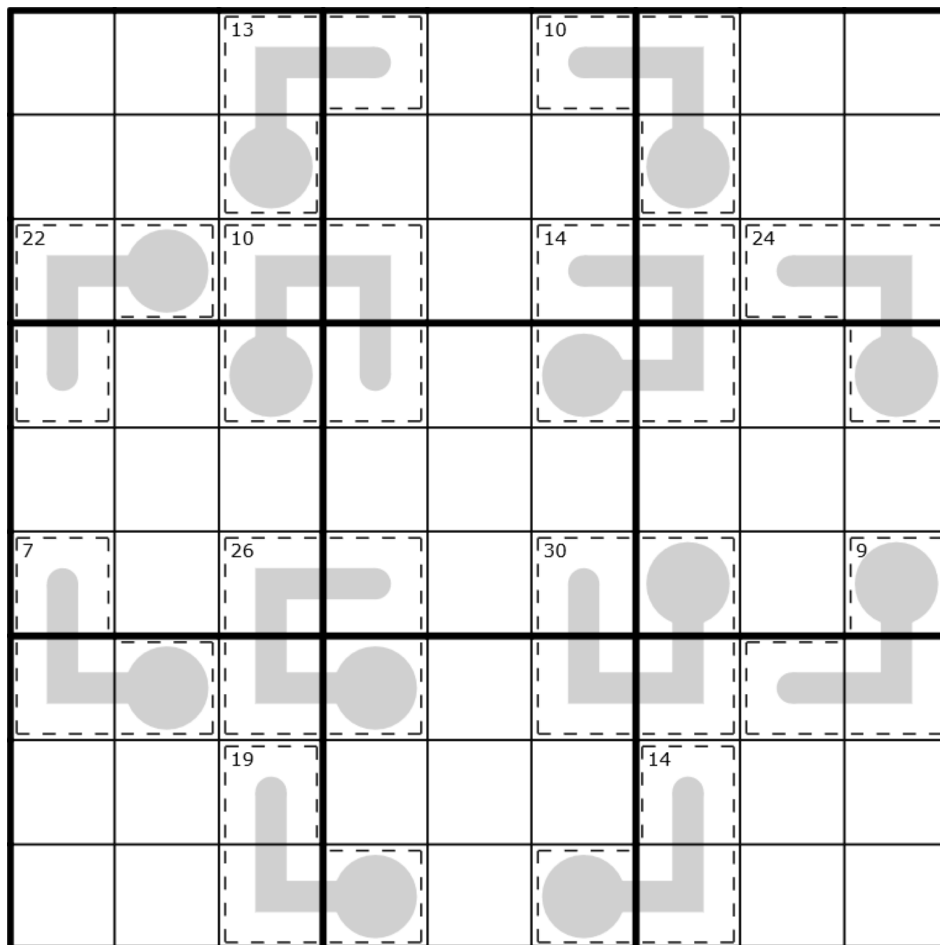
March 2, 2023: Another Humanmade Sudoku

Bill Murphy

For those of you who haven't poked around the discord a lot, I have a soft spot for the channel on monthly-puzzle-prompt. For those who aren't familiar, eg. Those watching this intro on youtube, this channel has a new prompt each month where setters will set to a theme. I haven't made anything for it in a while, because I've been using my energy on GAS, but this month's theme is "Sequels", so it feels only appropriate to post this today.

If you went, "Oh this is a sequel to his first puzzle for GAS, a **Thermo Killer Sudoku**", then I love you, you can stay around.

Normal sudoku rules apply. Digits in cages must not repeat and must sum to the small corner total. Digits on a thermometer must strictly increase as they move away from the bulb.



f-puzzles: <https://f-puzzles.com/?id=2qhau78x>
CTC: <https://tinyurl.com/mthkaypj>

March 3, 2023: Killing Me Softly

Philip Newman

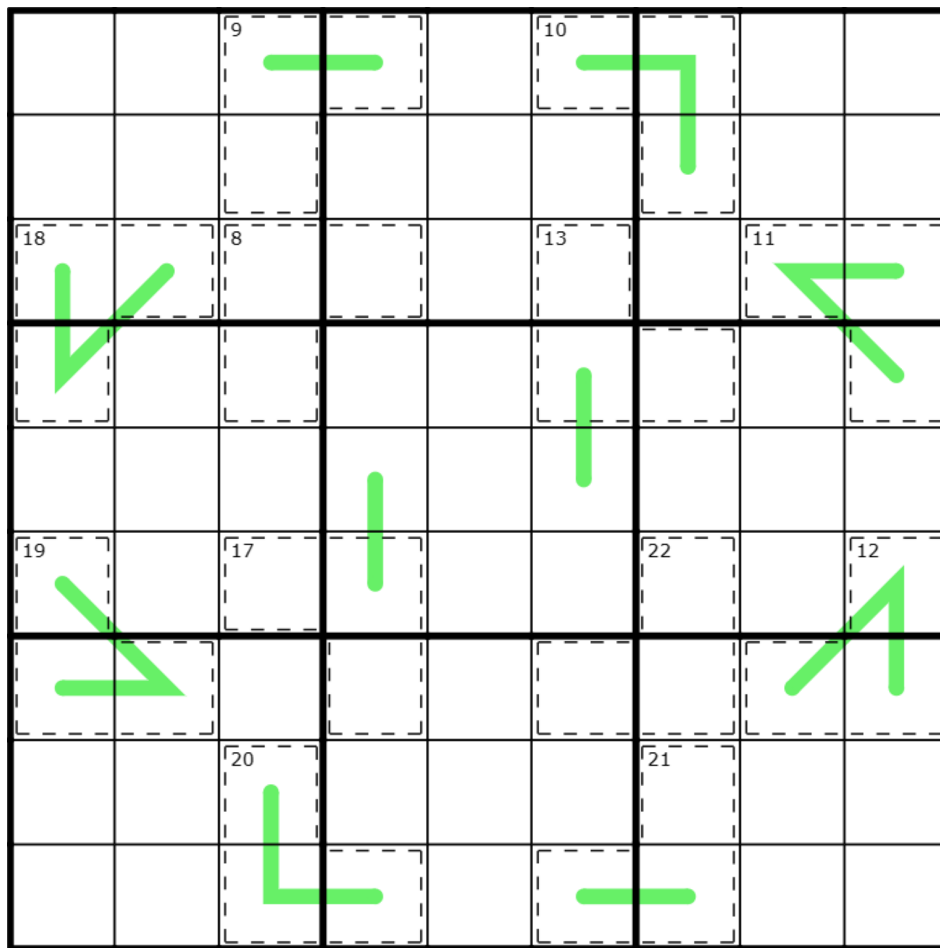
Unlike my fellow GAS setters, I don't believe in sequels. All of my sudoku constructions are completely original and uninspired.

Today's **GAS** is a **Killer German Whispers Sudoku!**

Normal sudoku rules apply.

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

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



Play on f-puzzles: <https://f-puzzles.com/?id=2jaf9utz>

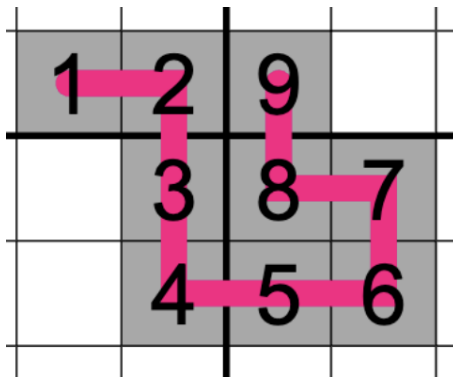
Play on CTC App: <https://tinyurl.com/46dx5asu>

March 4, 2023: Consecutive Chains

Clover

A *unicursal* labyrinth is one that can be traced in a single sweeping motion, with no branches or dead-ends. These labyrinths aren't meant to puzzle you; rather, they're created for aesthetic purposes, or to be walked during meditation. Similarly, the little labyrinths in this **consecutive chains sudoku** have no dead-ends or false starts: they go directly from 1 to 9, although they might meander a bit on their way! Oh, and you'll need to draw them yourself. 😈

Normal sudoku rules apply. Also, each gray area contains the digits 1 through 9 exactly once each, and these digits must form a consecutive chain of adjacent digits from 1 to 9 by moving horizontally or vertically from one cell to the next. (See example image).



								6
					8		7	
								2
4								
	1		3					
2								

f-puzzles: <https://f-puzzles.com/?id=2ohuot5y>
 CtC: <https://tinyurl.com/bdefmnek>

March 5, 2023: Bent Diagonal Sudoku

Bill Murphy

Hey! You! Yes, You @Daily Sudoku Solver !

You should do Sudoku Mahabharat Round 3 on Logic Masters India! This round is Math-y Sudoku and Irregular Sudoku! I've done it, it's great!

Just to get you in the mood, here's something irregular, a **bent diagonal sudoku!**

Bill places a finger to his earpiece

Huh?

What do you mean? Not that kind of irregular?

Anyway:

Normal Sudoku Rules Apply. Each of the four bent diagonals must contain the digits 1-9.

So you know how in a regular X Sudoku, each diagonal would contain the digits 1-9? Here each diagonal bounces at the intersection, creating 4 diagonals which all must contain the digits 1-9. I've included a handy coloured image for your reference attached to this post.

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

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

f-puzzles: <https://f-puzzles.com/?id=2mkot3bl>

CTC: <https://tinyurl.com/p9mzez5w>

March 6, 2023: Happy Anniversary

Philip Newman

Happy anniversary to my parents, who have been married 42 years. 🎉 (Does this mean they have discovered the Answer to the Ultimate Question of Life, The Universe, and Everything?)

As established last intro, I *never* make sequel puzzles. But an anniversary is *like* a sequel, and if I *were* to make a sequel puzzle...

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

Normal sudoku rules apply.

Diagonal: Digits along the indicated diagonals cannot repeat.

Snag a **bonus hat** 🧢 for identifying what this puzzle is a sequel to!

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

Play on f-puzzles: <https://f-puzzles.com/?id=2e3dqjz5>

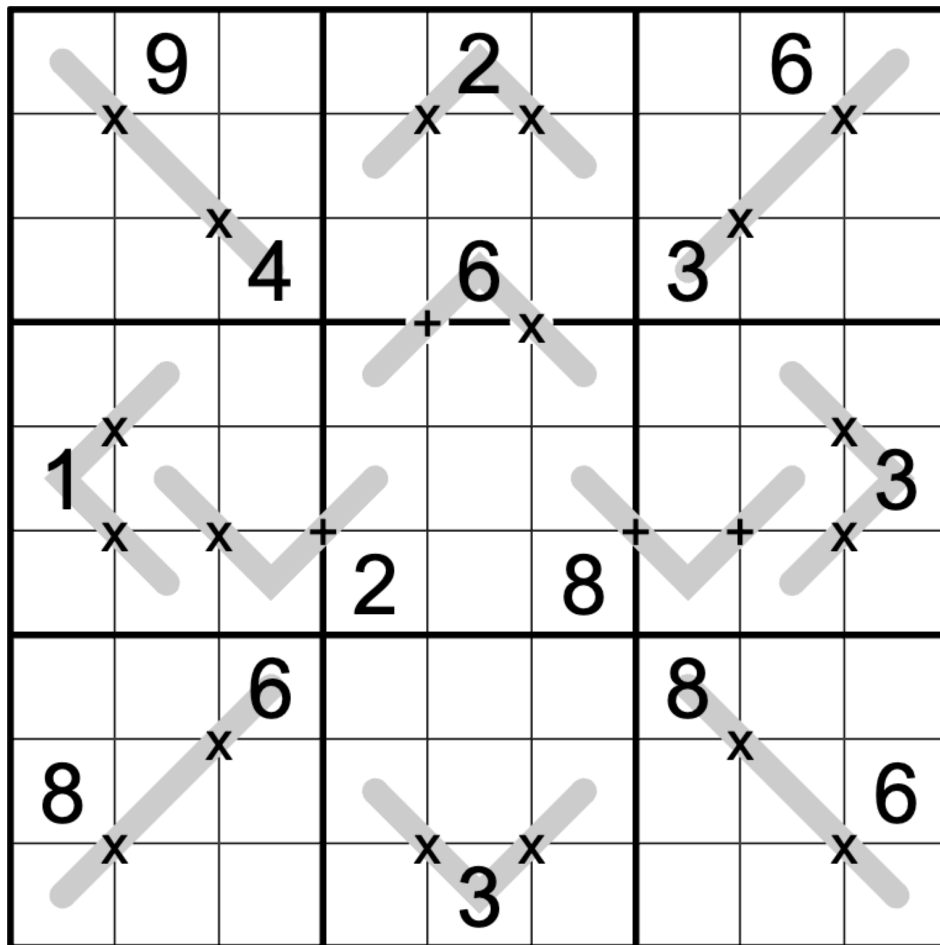
Play on CTC App: <https://tinyurl.com/2rjssw9k>

March 7, 2023: 24-Trio Sudoku

Clover

The number 24 is a *highly composite number*: there are no smaller numbers that have as many divisors as it does. This makes it a helpful friend for today's **24-trio sudoku**, which is all about multiplication (with a little addition thrown in on top!)

Normal sudoku rules apply. Also, each gray line contains an arithmetic problem that must have a result of exactly 24. Multiplication always occurs before addition. For instance, a line reading $_ + _ \times _$ could be filled in with the digits 9, 3, and 5, in that order, because $9 + (3 \times 5) = 24$. Digits may repeat along lines.



f-puzzles: <https://f-puzzles.com/?id=2ldh7u9y>

CtC: <https://tinyurl.com/srccecm75>

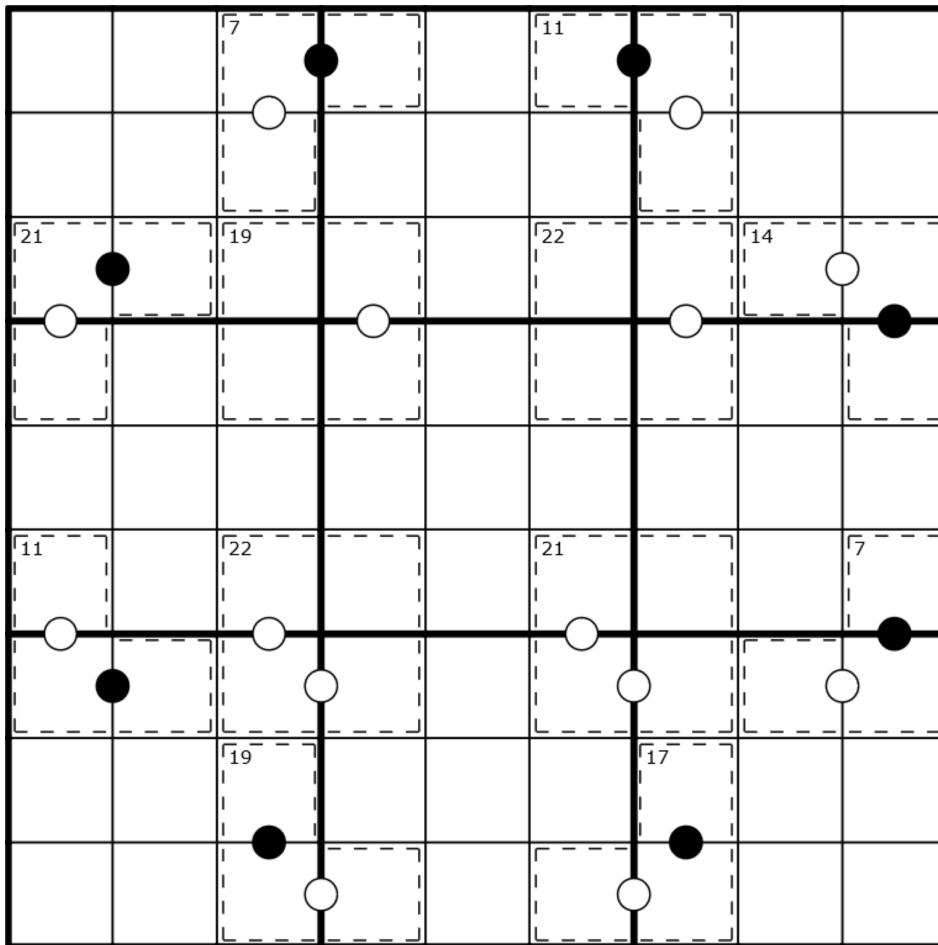
March 8, 2023: Dot Press Me

Bill Murphy

For those of you who haven't poked around the discord a lot, I have a soft spot for the channel on #monthly-puzzle-prompt. For those who aren't familiar, eg. Those watching this intro on youtube, this channel has a new prompt each month where setters will set to a theme. I haven't made anything for it in a while, because I've been using my energy on GAS, but this month's theme is "Sequels", so it feels only appropriate to post this today.

If you went, "Oh this is a sequel to his first puzzle for GAS *this month*, a **Consecutive Pairs-Killer** Sudoku", then I love you, you can stay around.

Normal sudoku rules apply. Digits in cages must not repeat and must sum to the small corner total, where given. Digits separated by a white dot must be consecutive. Digits separated by a black dot must be in a 2:1 ratio. Not all possible dots are given.



f-puzzles: <https://f-puzzles.com/?id=2z537sfm>

CTC: <https://tinyurl.com/yck9d7rk>

March 9, 2023: Plus C'est la Même Chose

Philip Newman

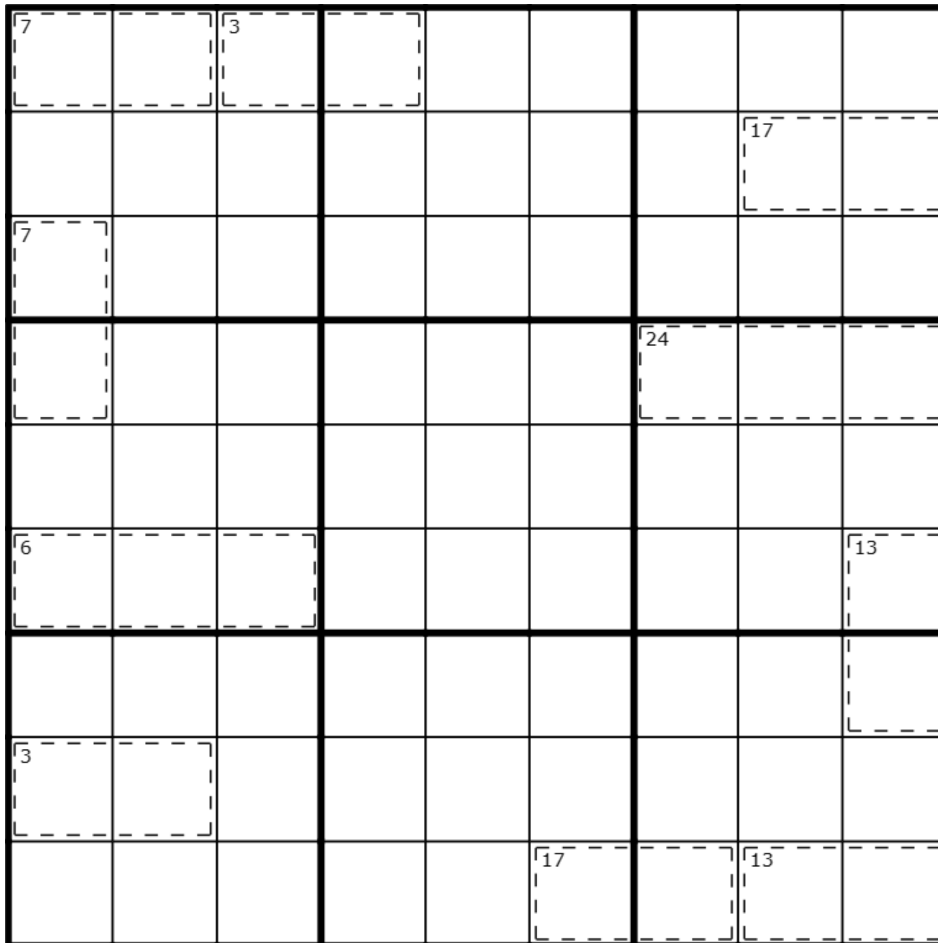
Today's **GAS**, a **Killer Sudoku**, has a story behind it. Unfortunately, that story spoils a big part of the puzzle! So, I'm going to do something a little different today and link to the story in #theory-and-programming.

Link:

<https://discordapp.com/channels/709370620642852885/1083407845791375370/1083407847989203106>

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=2eeteru2>

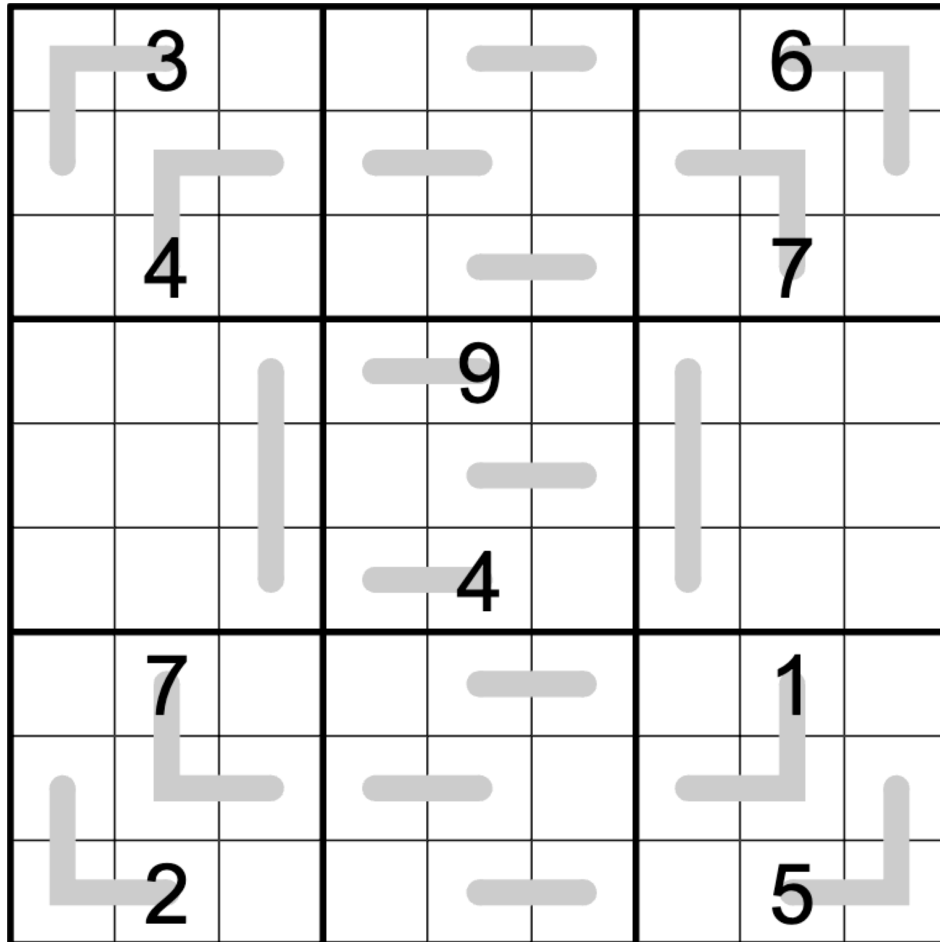
Play on CTC App: <https://tinyurl.com/2kewu823>

March 10, 2023: Consecutive Sequences

Clover

Somebody gave me this lovely vase of dried consecutive thermos, but I jostled them and all of the bulbs fell off. I wonder if we could solve them anyways?

Normal sudoku rules apply. The digits along each line must form a consecutive sequence in order (either increasing or decreasing), such as 5 6 7.



f-puzzles: <https://f-puzzles.com/?id=2f2cujrp>

CtC: <https://tinyurl.com/4be45sxx>

March 11, 2023: big time

bill murphy

I've been getting into setting classics recently. It's not because I'm finding it easier (they're still terrifying) or I'm growing as a person (I'm cooking a frittata at 9pm on a Saturday), it's because it's one of the few things I can set easily on the work laptop when I get distracted and they soften the blow for any upcoming tricky GAS I have in the pipeline (I'll see y'all next time 😊)

Normal Sudoku Rules Apply.

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

f-puzzles: <https://f-puzzles.com/?id=2m jy35c4>

CTC: <https://tinyurl.com/ypdm4etm>

March 12, 2023: #Disambiguation

Philip Newman

Many times when we post GAS, people find the variant part a breeze but then struggle with the classic part. Well, there's only one solution to this: ~~make better puzzles~~ put the classic part first!

Today's **GAS** is an **Anti-King Sudoku!**

Normal sudoku rules apply.

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

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

Play on f-puzzles: <https://f-puzzles.com/?id=2j78wqmg>

Play on CTC App: <https://tinyurl.com/3b73z42x>

March 13, 2023: Clone Sudoku

Clover

Today's **clone sudoku** was the byproduct of a horrific laboratory accident. Nonetheless, it still deserves our love and attention: after all, it's basically the same sudoku with a silly moustache and a penchant for evil. 🧙

Normal sudoku rules apply. The two shaded regions contain exactly the same arrangement of digits. For instance, r1c2 is the same as r6c5.

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

f-puzzles: <https://f-puzzles.com/?id=2jsnoyjq>

CtC: <https://tinyurl.com/2p83jkh9>

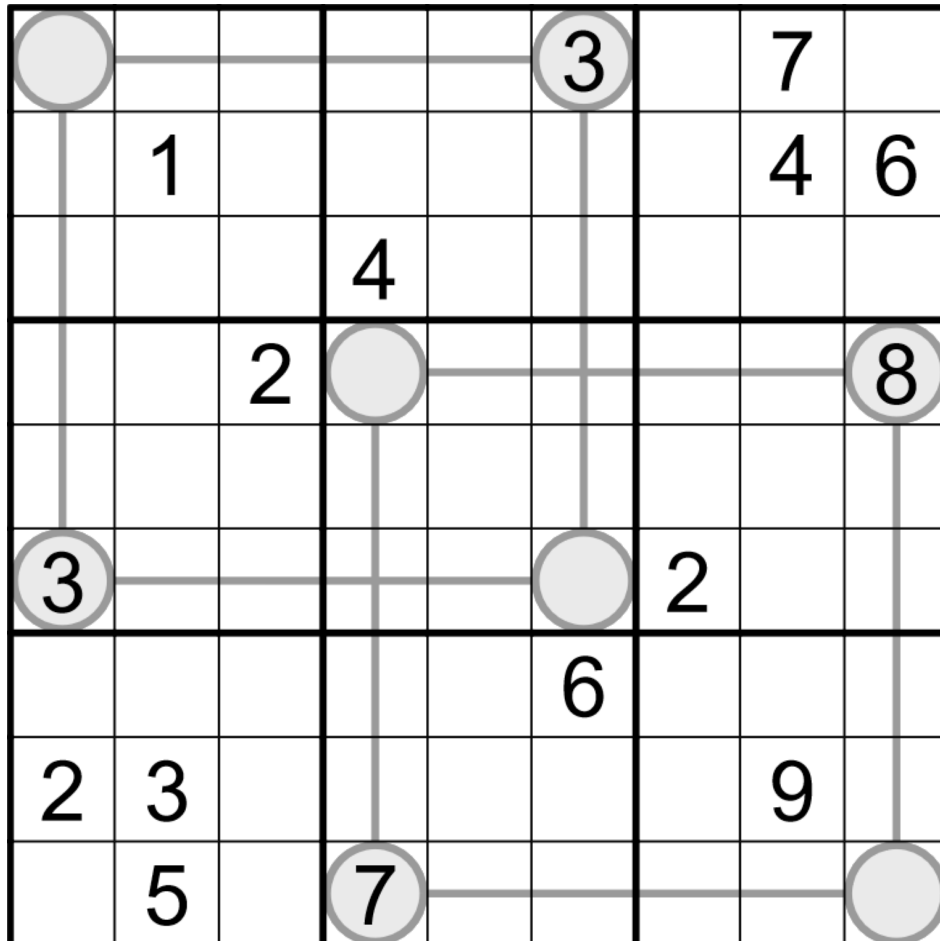
March 14, 2023: Wedding in Finistère

Bill Murphy

The *zwischenzug* (German: pronounced [ˈtʰvɪʃənˌtʰuːk], "intermediate move") is a chess tactic in which a player, instead of playing the expected move (commonly a recapture), first interposes another move posing an immediate threat that the opponent must answer, and only then plays the expected move. It is a move that has a high degree of "initiative". Ideally, the *zwischenzug* changes the situation to the player's advantage, such as by gaining material or avoiding what would otherwise be a strong continuation for the opponent.

In the spirit of the *Zwischenzug*, here's today's **Between Lines** Sudoku.

Normal sudoku rules apply. Digits on lines connecting circles must lie between the circled digits numerically.



f-puzzles: <https://f-puzzles.com/?id=2dvvok74>

CTC: <https://tinyurl.com/cb8p7fh2>

March 15, 2023: The Ides of March

Philip Newman

Sometimes when we post GAS, we put the classic part first. This is not one of those times.

Today's **GAS** is another **Anti-King Sudoku!**

Normal sudoku rules apply.

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

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

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

Play on CTC App: <https://tinyurl.com/362thees>

March 16, 2023: Palindrome

Clover

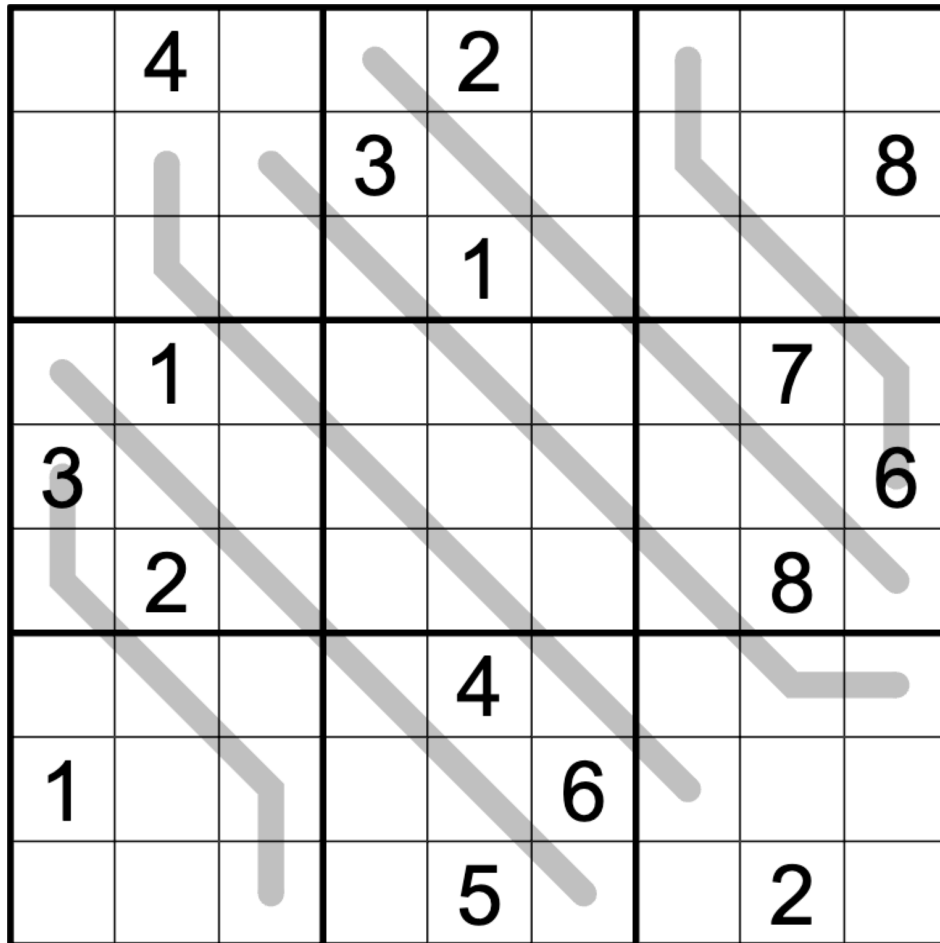
The first attached image shows a poem called "Star Gauge" by the 4th-century Chinese poet Su Hui. It can be read not only backwards and forwards, but also in approximately 3,000 (really) other ways to form different snippets of rhyming poetry.

Fortunately, we'll only ask you to read the palindromes in today's puzzle two ways: forwards and backwards. Normal sudoku rules apply; also, the digits along each gray line form a palindrome (a sequence that reads the same going in either direction).

A large grid of Chinese characters arranged in a 10x10 pattern, forming a complex palindromic structure. The characters are organized into a grid where each row and column contains a sequence of characters that can be read in multiple directions to form meaningful phrases or poems.

《璇玑图》简体

《璇玑图》正体



f-puzzles: <https://f-puzzles.com/?id=2lgquq38>
CtC: <https://tinyurl.com/4m6k392b>

March 17, 2023: Make Way

Bill Murphy

On Australian TV today, I was on my third quiz show for the year, Rockwiz. (It's a music trivia show, there's not really anything like it anywhere else, but probably the closest thing the UK has to it Never Mind The Buzzcocks.)

I've always been a big music listener. Did you know that most of my puzzle titles for garden variety sudoku and it's collegiate variants these days are just song titles of what I'm listening to at the time?

There's no rhyme or reason to it, I'm not even trying to promote the bands I listen to, it just makes my life a little easier.

I keep track of them all in a playlist in these days, which you can find here:

<https://open.spotify.com/playlist/30FIGK1BD9c8nFpv4HpUq4?si=eb2a54ec44454173>

Today's GAS is a **Classic Sudoku**. You know what's up but I'll say it anyway: *Put the digits 1-9 in each box, row and column.*

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

f-puzzles: <https://f-puzzles.com/?id=2prfn85>

CTC: <https://tinyurl.com/56j9hnpj>

March 18, 2023: Domino Rally

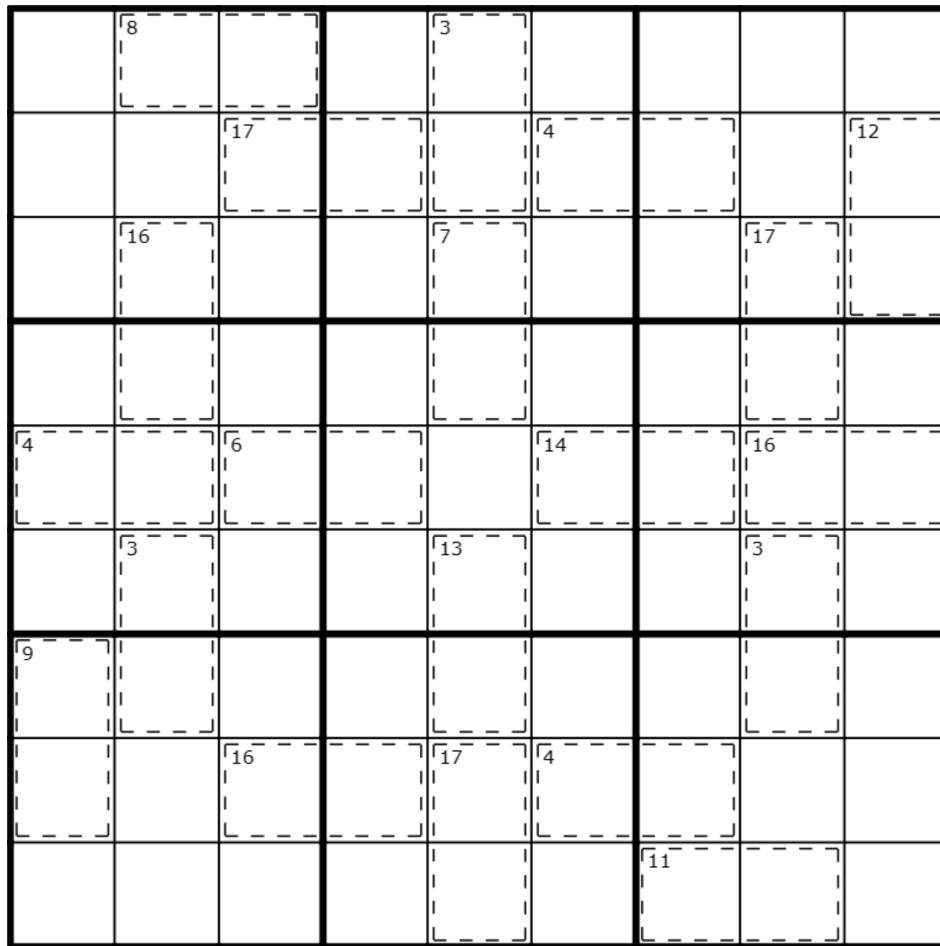
Philip Newman

Special announcement! There will be another @Legitimate Patreon Haver quiz show watch party in voice-chat-1 at 19. März 2023 15:00! That's clearly too early for me to be awake, so the rest of you had better show up in my place!

Today's **GAS** is a **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=2pxsjbfx>

Play on CTC App: <https://tinyurl.com/2e2aeymt>

March 19, 2023: Deficit Sudoku

Clover

Before we start: we're having a watch party in #voice-chat-1 in about 10 minutes! We're watching another edition of Bill's whirlwind tour through the game shows of Australia 🥳

Now for the GAS: Humans have always loved taking care of tiny little guys. Kittens. Pet rocks. Pokemon. Tamagotchis. **Deficit sudoku**. Something about it just warms our blackened, shriveled hearts. Take good care of today's tiny little GAS for me, would ya?



Place a number from 1-7 in each empty cell in the grid such that each row and column contains each number exactly once, and each 6-cell region contains each number **at most** once.

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

SudokuPad: <https://tinyurl.com/2p92zxuu>

March 20, 2023: Such Great Heights

Bill Murphy

Thanks everyone for coming out for the insanity that was my episode of Rockwiz, my favourite moment that didn't make the cut was the question, "Which actor danced his way across a hotel-" and I've pressed the buzzer and gone

"Would that be Christopher Walken in the video for Fatboy Slim's Weapon of Choice video?"

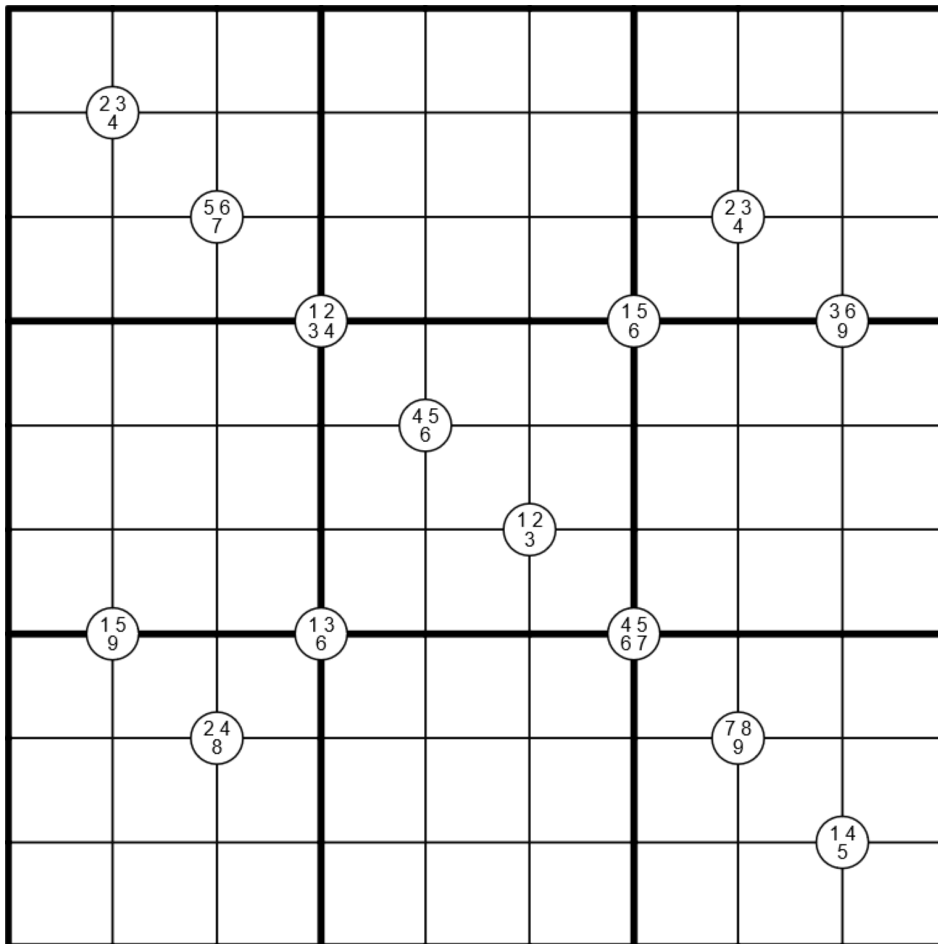
"How in the hell do you know that?"

"It was a very influential video for me as a small child and I took up salsa dancing because of it"

And then the host and I ended up flirtily shimmying at each other because I didn't want to admit they'd used this question in my zoom interview so I knew it already.

Anyway, **Quadruples Sudoku** today!

Normal sudoku rules apply. Digits in clues at cell intersections must appear in the surrounding 4 cells.



f-puzzles: <https://f-puzzles.com/?id=2mczulfc>

CTC: <https://tinyurl.com/pnszz24r>

March 21, 2023: 16 Extra Givens??

Philip Newman

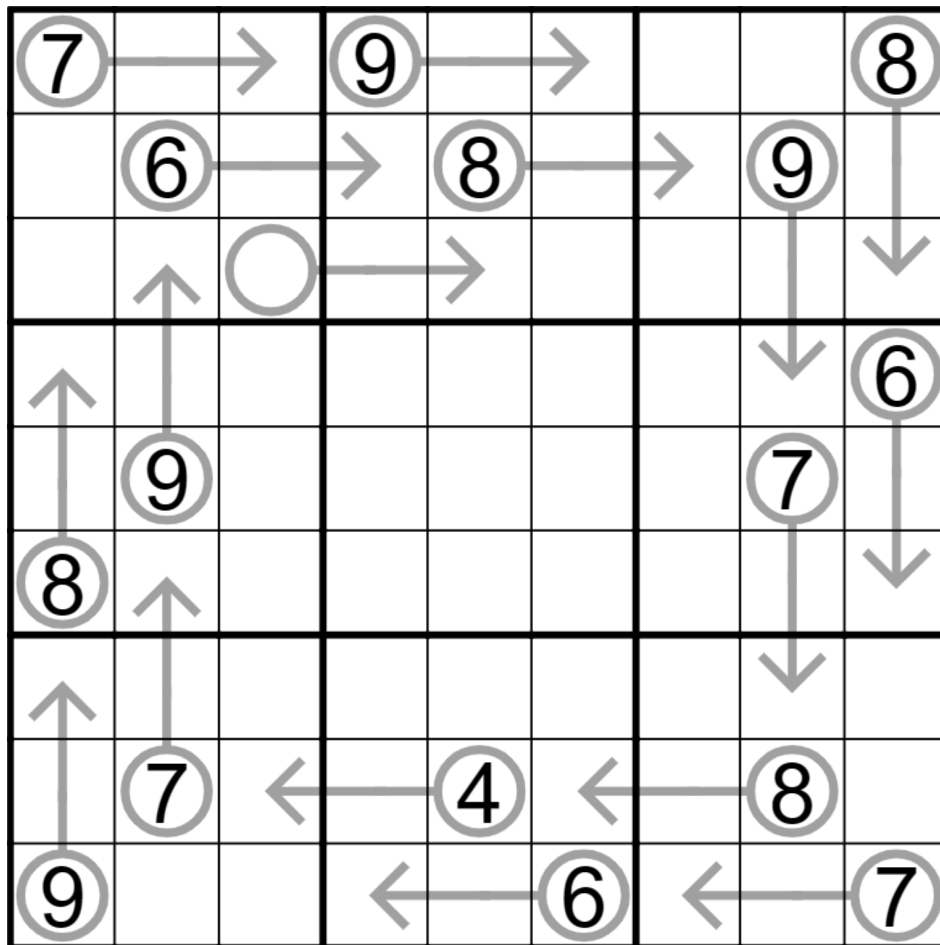
I'm feeling extra generous today, but due to Daylight Savings in the US I am not allowed to give you extra *time*. Instead, I've given you extra givens! Sixteen of them, in fact. That's right, it's time for another edition of "Philip made a silly pattern that happens to have a unique solution and turned it into GAS by throwing digits at it!"

Oh, you wanted a 17th given digit for that last arrow? Don't be ridiculous. Everyone knows 16 is the maximum number of given digits for an already unique arrow puzzle.

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

Normal sudoku rules apply.

Arrow: Digits along arrows must sum to the circled total. (Digits may repeat if allowed by other rules.)



Play on f-puzzles: <https://f-puzzles.com/?id=2hr58pyf>

Play on CTC App: <https://tinyurl.com/5n7nmjt3>

March 22, 2023: Clone Fortress

Clover

Today's GAS was discovered on a medieval tapestry, which is believed to depict a map showing two fortresses: the Great Keep of Regiononetworkfouria, and the Castle of Regionsixeightnineistad. In modern times, these fortresses are believed to have been virtually interchangeable - although I'm sure their inhabitants would have disagreed!

In this **clone fortress sudoku**, normal sudoku rules apply. Also, gray regions of the same size and shape contain exactly the same arrangement of digits. Each digit in a gray cell must be greater than all of the digits in white cells that are orthogonally adjacent to that cell.

8		2		6		1		5
						7		
		7						
				5				
						3		
		6						
2		3		8		6		1

f-puzzles: <https://f-puzzles.com/?id=2lvbqymz>

CtC: <https://tinyurl.com/3mpa28cm>

March 23, 2023: New Order T-Shirt

Bill Murphy

A long set of purple lines running through my sudoku? Call those Renbanners, am I right?

In this **Renban Sudoku**, normal sudoku rules apply. Digits along purple lines must form a consecutive set of numbers and may be in any order.

4				6	3		
	7	4				6	
	8	2				3	
7				8	6		
3				2	4		
	6	3				7	

f-puzzles: <https://f-puzzles.com/?id=2jbyhfap>
CTC: <https://tinyurl.com/3kvnv468> (Bearbeitet)

March 24, 2023: HI

Philip Newman

The title speaks for itself.

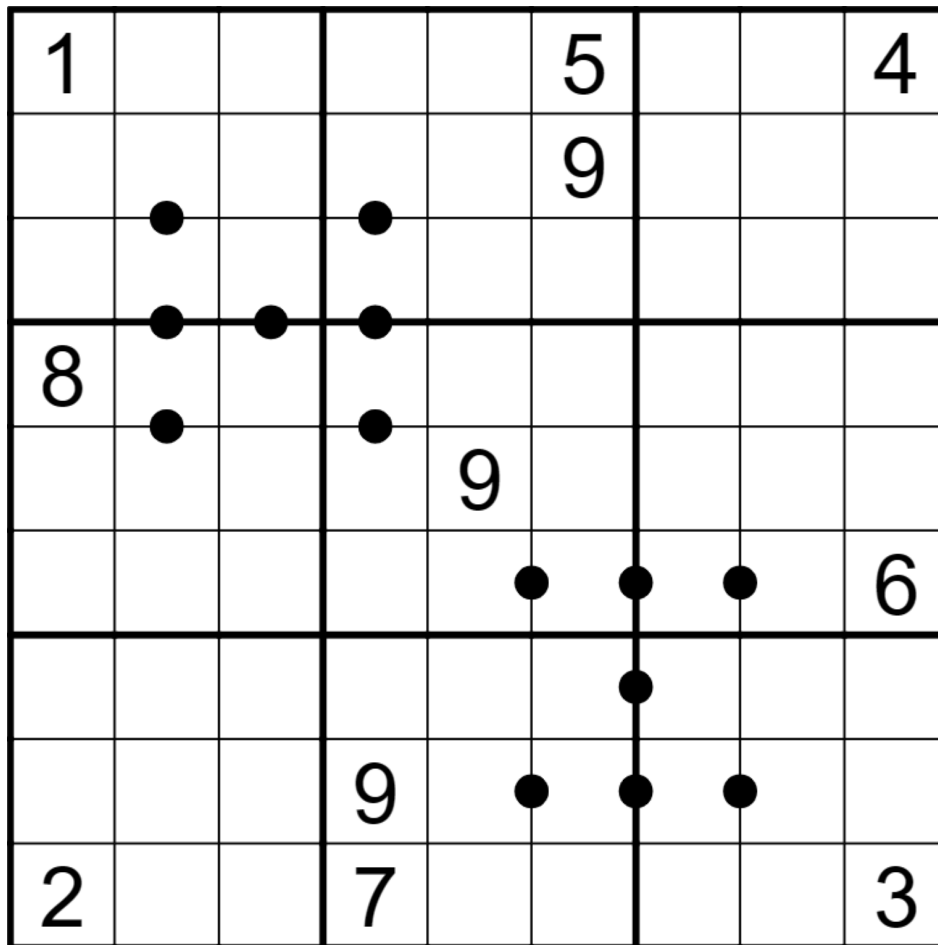
Also: I'm joining @Memeristor (purpl) for the Setter Spotlight Series in about 24 hours! 25. März 2023 18:00 (UT) to be precise. Stop by if you want to hear me ~~ramble for two hours about obscure sudoku techniques~~ answer questions!

<https://www.youtube.com/live/bDWajXcoe6M?feature=share>

Today's **GAS** is a **Ratio Pairs Sudoku**!

Normal sudoku rules apply.

Ratio Pairs: Digits in cells separated by a black dot must have a ratio of 2:1. (No negative constraint - other pairs of digits may also have a 2:1 ratio.)



Play on f-puzzles: <https://f-puzzles.com/?id=2ffrabd7>

Play on CTC App: <https://tinyurl.com/4srh85vy>

Memeristor: **Philip Newman (Setter Spotlight Series)**

<https://www.youtube.com/live/bDWajXcoe6M?feature=share>

March 25, 2023: Difference 2 Neighbor

Clover

Make sure you check out Philip's appearance on Setter Spotlight later today over at <https://www.youtube.com/live/bDWajXcoe6M?feature=share>. See you there! In the meantime, here's a GAS to tide you over:

In this **difference 2 neighbor sudoku**, normal sudoku rules apply. Also, each digit in a gray cell must have at least one orthogonal neighbor that is exactly 2 more or 2 less than it. (The neighbor may be in another gray cell or in a white cell.) Not all possible gray cells are necessarily given.

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

f-puzzles: <https://f-puzzles.com/?id=2ju4rdu7>

CtC: <https://tinyurl.com/3z6sn5fx>

March 26, 2023: Emitter Sudoku

Bill Murphy

KLAXON SOUND

Sudoku Mahabharat 2023 Round 4 - Neighbours & Converse is live! Go do it! Bonus Hat Rules Still Apply!

KLAXON SOUND

Congratulations to Mr. Mark Goodliffe, who reached 100 consecutive 2 hat solves today, with no signs of slowing down! Let's see what we can do about that, shall we?

KLAXON SOUND

Today's GAS is an **Emitter Sudoku**. The rules are a little intense, but I've included a plain English version underneath.

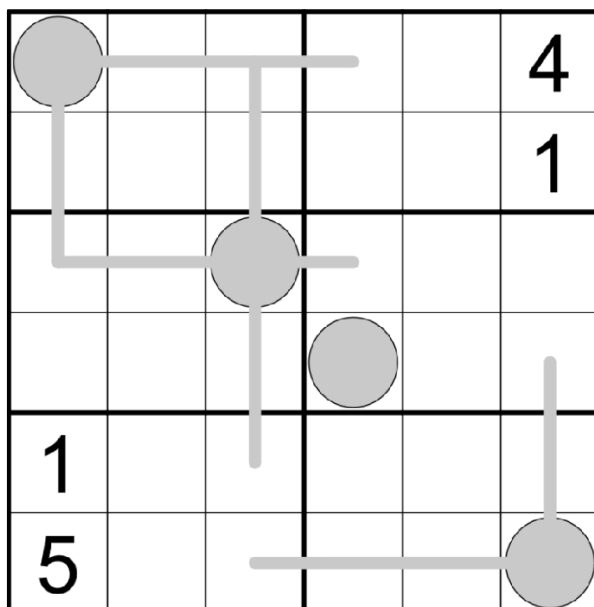
Normal Sudoku Rules Apply. There are some circled digits in the grid which are called 'emitters'. Four lines of cells originate at each emitter, one in each direction. The digits along each of these lines must have a sum no greater than the value of the emitter itself; also, each line must be as long as possible (that is, if a line were extended by one cell, the sum would be greater than the emitter value). If no line is given in a direction, the adjacent cell would be higher than the digit in the circle.

So, if that's a lot for you, the gist is it's Arrow sudoku, the highlighted cells are the bulb and the line goes as far as possible until it reaches the sum in the circle or going one cell further along would be larger than the digit in the circle. The sum along the line won't always equal the bulb and if there's no line, the adjacent digit is bigger than the bulb digit.

I'm including the rare PRACTICE PUZZLE for you today to practice today's ruleset on if you want to wrap your head around it before going bigger.

6x6 f-puzzles: <https://f-puzzles.com/?id=2npcho7m>

6x6 CTC: <https://tinyurl.com/yzr3t5kw>



So, if you've got all that, here's the deal. [here were the times, look in the table in the back. Mr. Goodliffe gets less time for 2 hats]

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

f-puzzles: <https://f-puzzles.com/?id=2fdbsg78>

CTC: <https://tinyurl.com/4mbna2cj>

March 27, 2023: 129 Crane Fly

Philip Newman

Everyone here (hopefully?) knows that the rules of sudoku ask you to fill each row, column, and 3x3 box with the digits from 1 to 9. But when I'm feeling especially lazy, I just fill my puzzles with the digits from 1 to 9 *in order*.

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

Normal sudoku rules apply. And that's it!

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

Play on f-puzzles: <https://f-puzzles.com/?id=2pck363t>

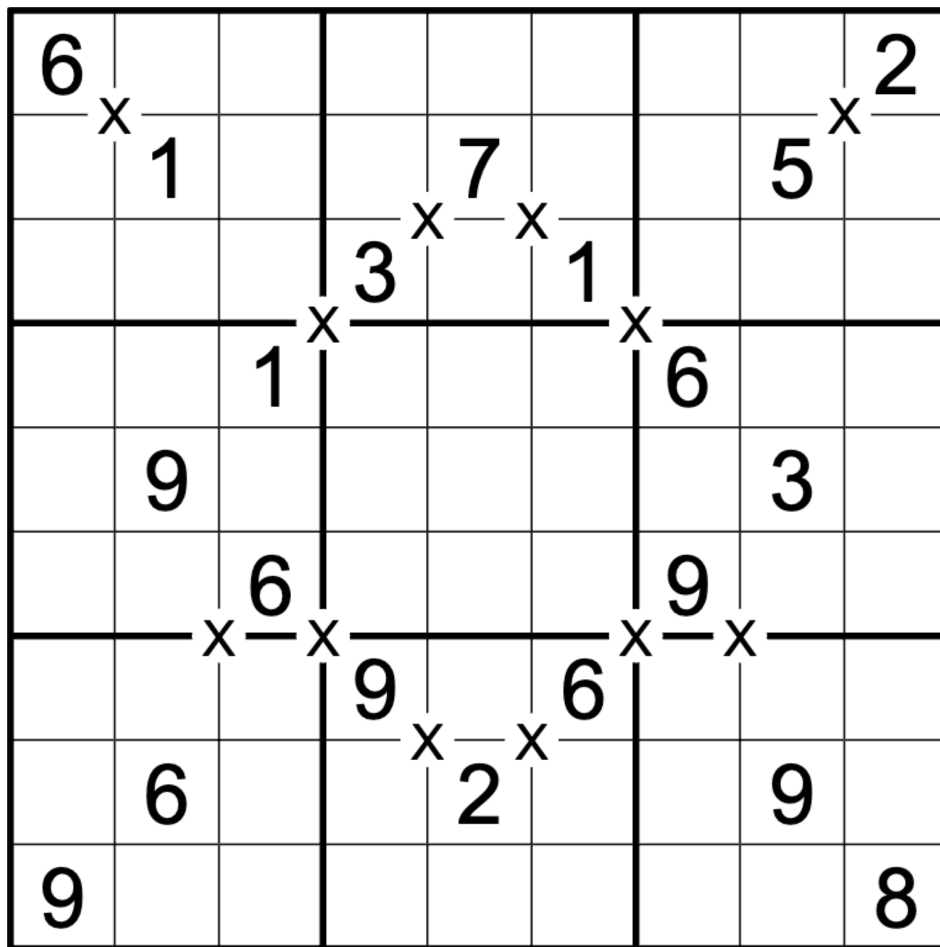
Play on CTC App: <https://tinyurl.com/2ks8na9h>

March 28, 2023: Cross Sums

Clover

The sums in today's **cross sums sudoku** are very cross indeed. I can only speculate that somebody dinged their car with a shopping cart, or ate the last Cadbury creme egg that they were personally saving for later. 🤔

Normal sudoku rules apply. Whenever an X appears at the corner of four cells, each of the two diagonal pairs of cells surrounding it must have the same sum.



f-puzzles: <https://f-puzzles.com/?id=2o7orhjc>

CtC: <https://tinyurl.com/4dj8k8kb>

March 29, 2023: Stuck in the Middle with You

Bill Murphy

Today was going to be episode 2 in my **villain arc**, especially after my class this afternoon (working will do that to you am I right, fellow teachers?), but I got home and the energy for being evil and malevolent has kinda dissipated. So, let's meet in the middle, with this **Median Sudoku**.

Normal Sudoku Rules Apply. Clues outside the grid give the middle of the first three digits seen from that direction.

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

Clues above the grid: 7, 7, 4, 8, 3

Clues to the left of the grid: 4, 2, 7, 6

Clues to the right of the grid: 4, 6, 8, 6

Clues below the grid: 7, 2, 6, 4, 3

f-puzzles: <https://f-puzzles.com/?id=2o8fhlwd>

CTC: <https://tinyurl.com/3sawpytz>

March 30, 2023: The Art of Goodliffing

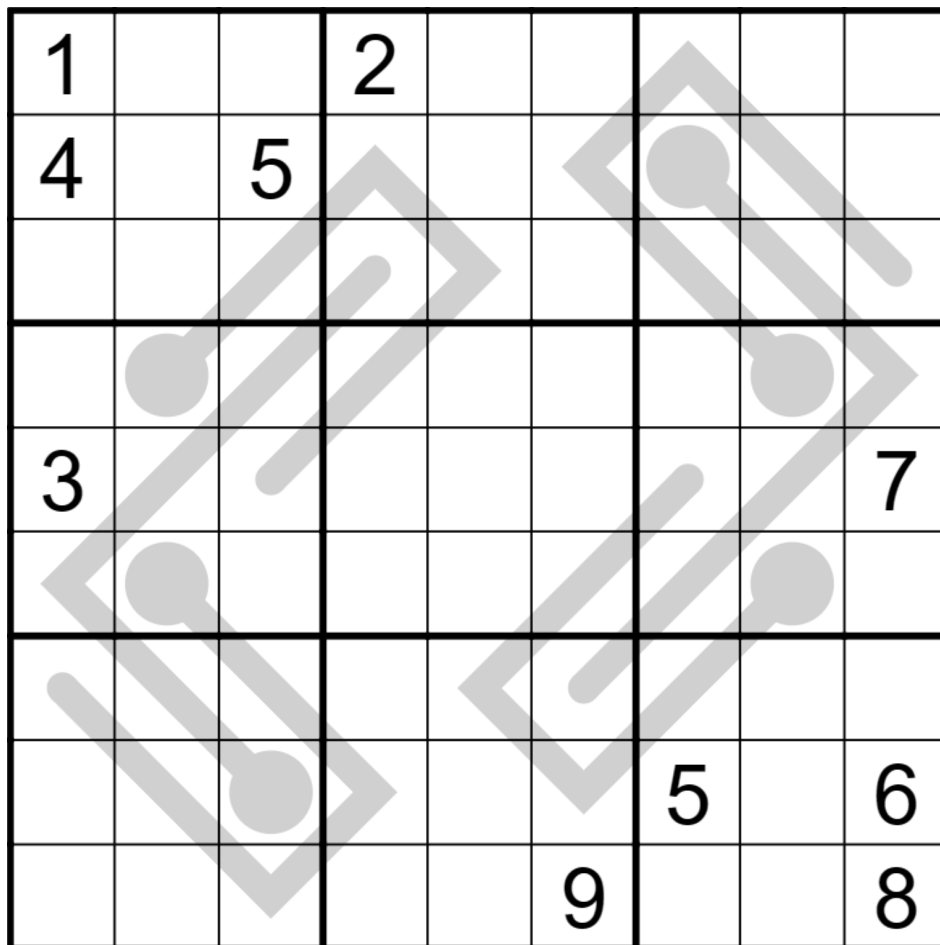
Philip Newman

Today we have a **GAS 101 Thermo Sudoku!** As usual, feel free to use as much or as little of the document as you like. (There are no direct spoilers for today's puzzle in this document, just hints at how you might approach it!)

A nugget from the document that doesn't spoil anything and is very helpful: **It's worth noting that in the CTC App/SudokuPad, double-clicking on a thermo cell will highlight all corresponding cells of thermos of the same length.**

Normal sudoku rules apply.

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



Play on f-puzzles: <https://f-puzzles.com/?id=2my2qjhb>

Play on CTC App: <https://tinyurl.com/krbbjhd3>

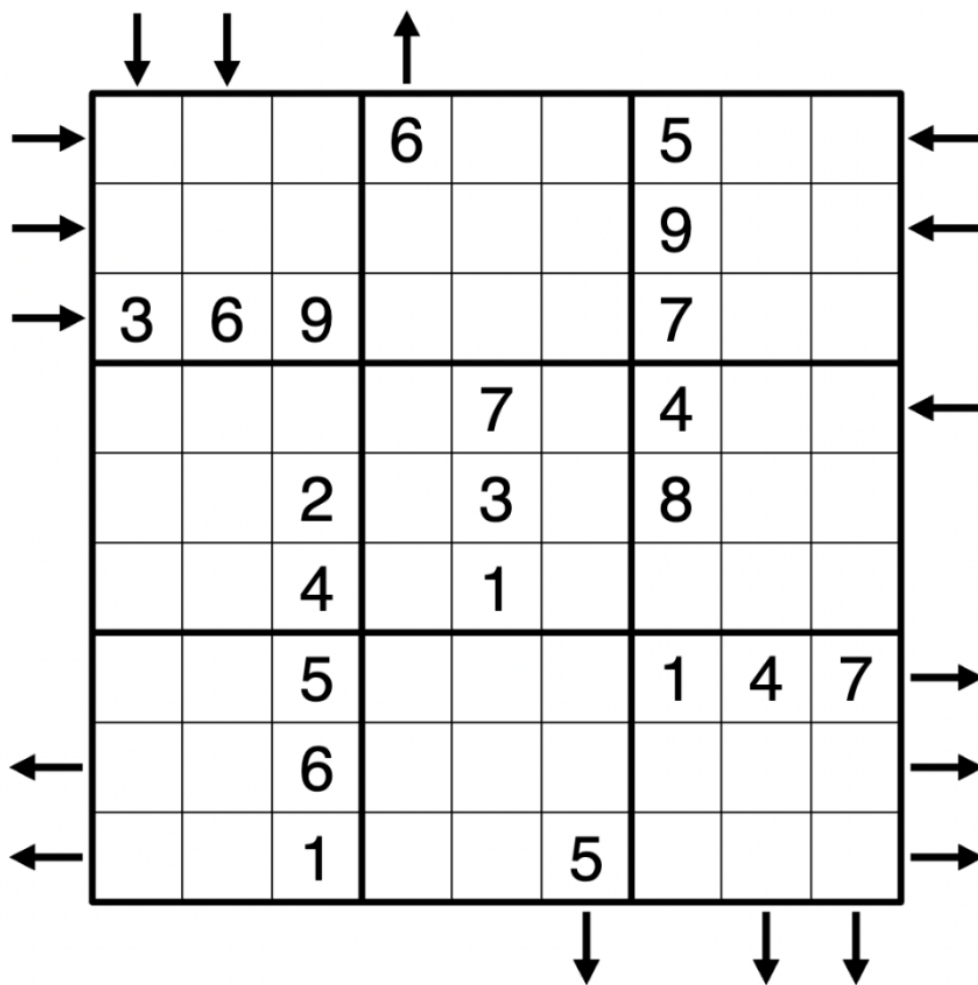
[GAS_101 - Zen and the Art of Goodliffing Your Thermos.pdf](#)

March 31, 2023: Rossini

Clover

ROSSINI SUDOKU with negative constraint

Normal sudoku rules apply. An arrow next to a row or column shows the direction that the three nearest digits in that row or column increase. For instance, the arrow to the left of r1 shows that $r1c1 < r1c2 < r1c3$. ALL POSSIBLE ARROWS ARE GIVEN. *** IF NO ARROW IS GIVEN, THE THREE DIGITS MUST NEITHER ALL INCREASE NOR ALL DECREASE. THIS PUZZLE HAS A NEGATIVE CONSTRAINT. *** HAVE I MADE MYSELF CLEAR.



CTC: <https://tinyurl.com/2pjt8st8> (Bearbeitet)

Bonus 1: Princess Cut

Shye

Normal sudoku rules apply. And that's it!

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

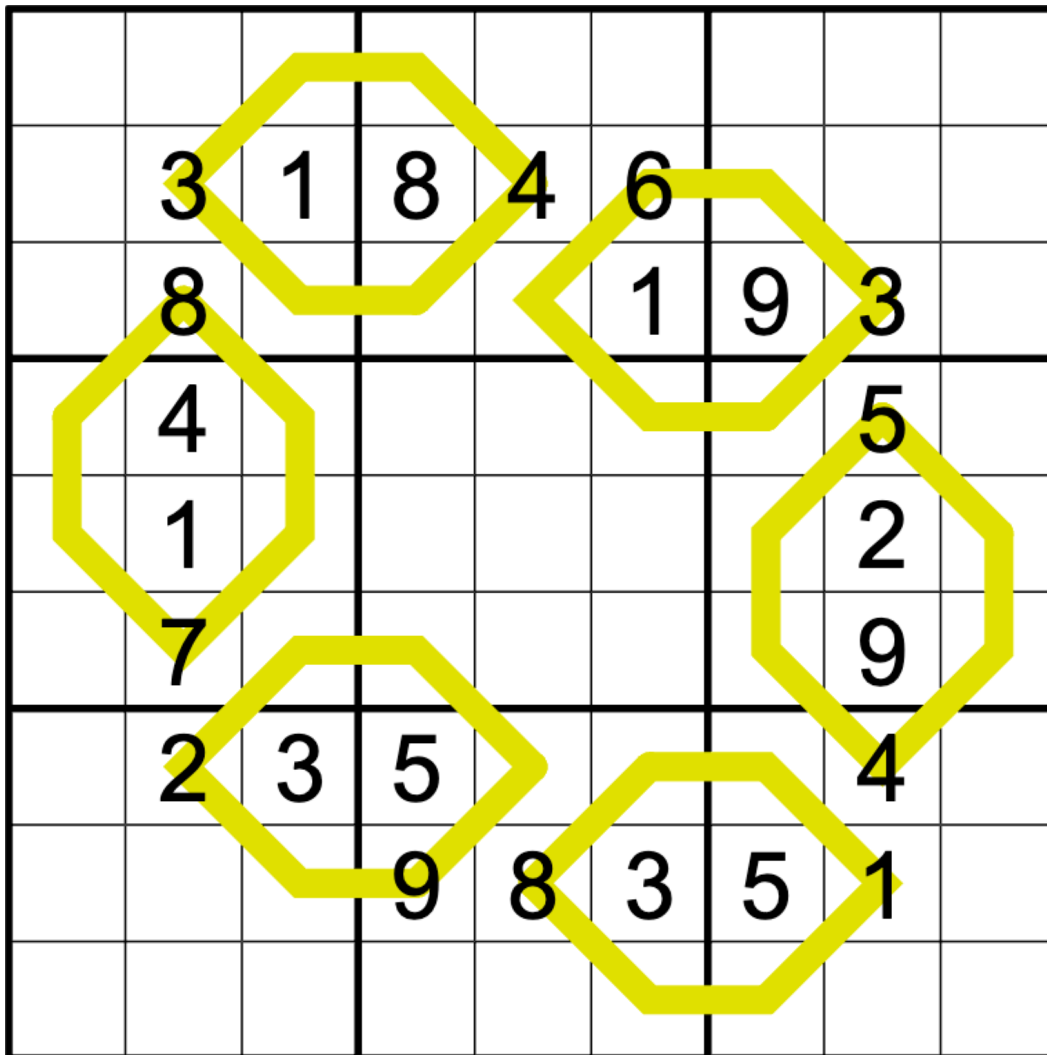
<https://f-puzzles.com/?id=28fh2efb>

<https://tinyurl.com/33my2jky>

Bonus 2: Lemon Sudoku

Clover

Normal sudoku rules apply. Also, for each “lemon” shape, read the two digits contained inside of the yellow line as a two-digit number from left to right or top to bottom. The digits *on* that yellow line must sum to that two-digit number. Digits on yellow lines may repeat as long as they follow sudoku rules.



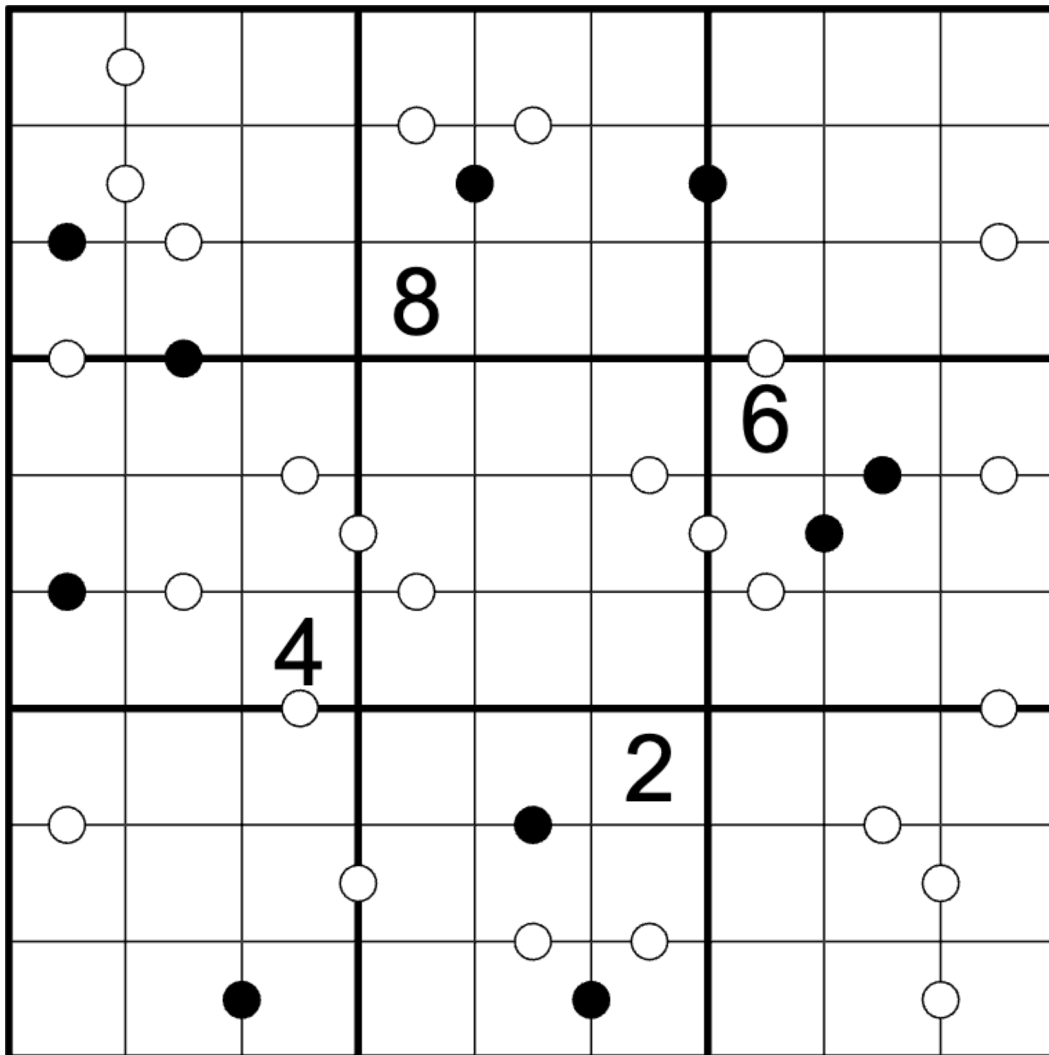
<https://f-puzzles.com/?id=2534vn88>

<https://tinyurl.com/2p88mnz4>

Bonus 3: Kropki

Philip Newman

Normal sudoku rules apply. Digits separated by a black dot are in a 1:2 ratio. Digits separated by a white dot are consecutive. ALL POSSIBLE DOTS ARE GIVEN (negative constraint applies). Note that a 1/2 pair may be separated by either a black or a white dot.



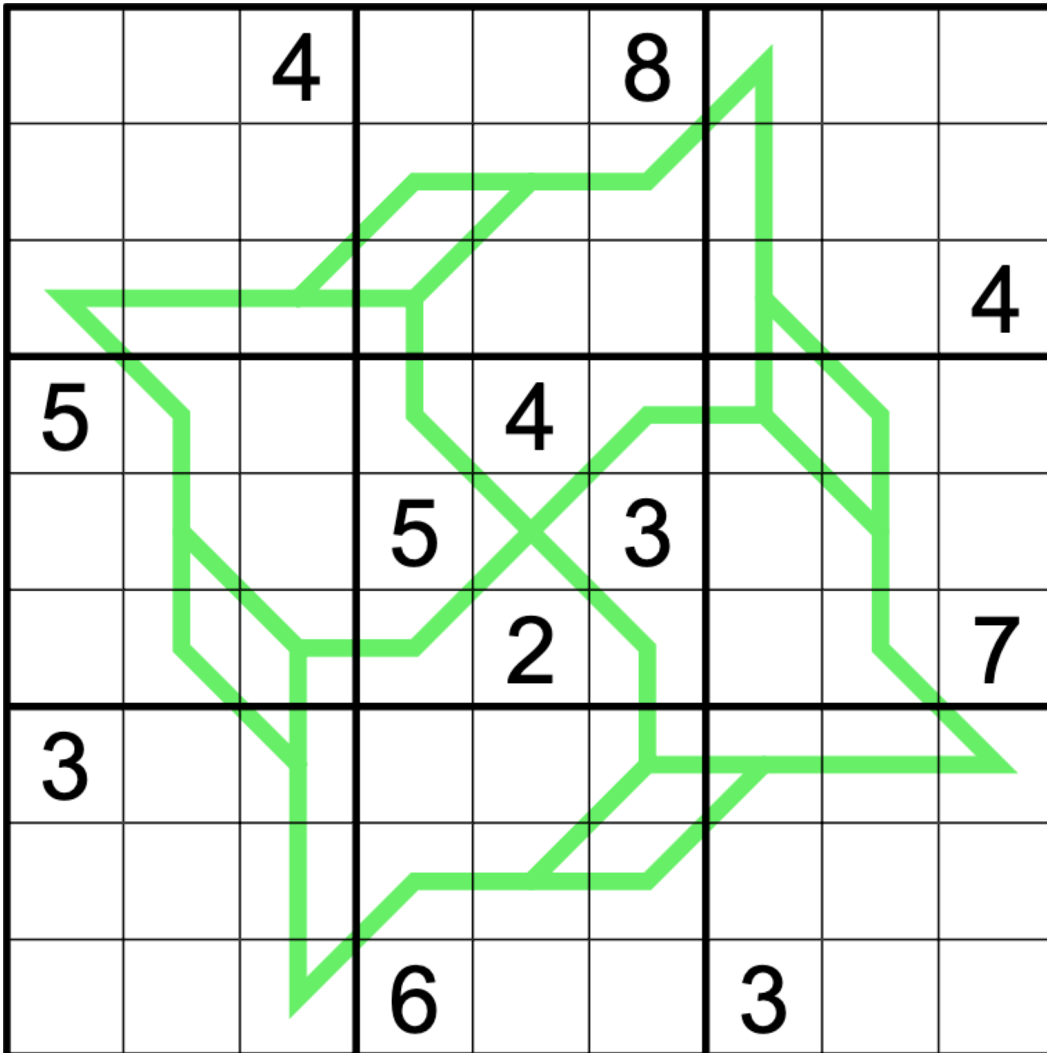
<https://f-puzzles.com/?id=2aq6knfe>

<https://tinyurl.com/5342cspr>

Bonus 4: German Whispers

Philip Newman

Normal sudoku rules apply. Along each green line, adjoining digits differ by at least 5.



<https://f-puzzles.com/?id=22n3rcrk>

<https://tinyurl.com/7m4bbfxv>

Bonus 5: Downright Dangerous

Bill Murphy

Normal sudoku rules apply. Digits along an indicated diagonal must sum to the given total.

A 9x9 grid with the following numbers and constraints:

		5	7					
							6	
	3				4			
			6				3	
	7							
					5	4		

Diagonal constraints:

- Top-left to bottom-right: 15 (row 1, col 4), 31 (row 2, col 5)
- Top-right to bottom-left: 34 (row 4, col 9), 7 (row 5, col 9)
- Bottom-left to top-right: 32 (row 4, col 1), 14 (row 5, col 1)
- Bottom-right to top-left: 12 (row 9, col 4), 31 (row 9, col 5)

<https://f-puzzles.com/?id=2gqtf6y5>

<https://tinyurl.com/pk4ydt92>

Time Benchmarks

	Two party hats	One party hat	Today's dinosaur:
March 1, 2023	06:30	12:00	artistic aorun
March 2, 2023	07:30	13:00	repetitive Rapator
March 3, 2023	08:30	16:00	Inspirational Ibirania
March 4, 2023	07:30	14:00	zen Zuniceratops
March 5, 2023	08:30	15:00	X-shaped Xuwulong
March 6, 2023	07:00	42 years	Ultrasauros Unobtainium
March 7, 2023	24/3 minutes	24/2 + 4 minutes	24-karat gorgosaurus
March 8, 2023	08:00	14:00	repetitive Rapator
March 9, 2023	05:00	12:00	Memetic Mamenchisauridae
March 10, 2023	06:30	11:30	botanic Bonapartenkyus
March 11, 2023	05:00	10:00	Classic Claosaurus
March 12, 2023	06:00	12:00	Ruixinia Rex
March 13, 2023	06:00	12:00	alternate-timeline Ajkaceratops
March 14, 2023	07:00	13:00	Intermediate Incisivosaurus
March 15, 2023	07:00	14:00	Kingly Kaijutitan
March 16, 2023	06:30	12:00	a man, a plan, a canal, Panamericansaurus
March 17, 2023	06:00	11:00	listening linheraptor
March 18, 2023	06:30	13:00	Party-Watching Pitekunsaurus
March 19, 2023	04:30	08:00	tiny Tyrannotitan
March 20, 2023	08:00	15:00	slightly cheating Changyraptor
March 21, 2023	06:30	13:00	Generous Gannansaurus
March 22, 2023	07:00	13:00	tale of two talenkauens
March 23, 2023	07:56	13:24	Groan-inducing Gryponyx
March 24, 2023	06:36	12:48	Multiplying Menucocelsior
March 25, 2023	07:00	13:00	neighborly Nebulasaurus
March 26, 2023	09:00 *	17:00	Evil Genius Eotyrannus
March 27, 2023	05:03	11:00	Languorous Lingwulong
March 28, 2023	06:00	11:00	grumpy Gryposaurus
March 29, 2023	09:30	18:00	Mid Minmi
March 30, 2023	08:00	16:00	Remarkable Rhomaleopakhus

March 31, 2023	06:30	12:00	strident Stenopelix
----------------	-------	-------	---------------------

* If you are Mr. Goodliffe you only have 7:30 for two hats on March 26.