GAS Leak

Genuinely Approachable Sudoku

from the CtC Discord

Volume 33:

Oct 1 – Oct 31, 2023

Welcome to Golden October!

We got a full month of GAS puzzles for you, one better than the other. Quite a few new types/variants are among them. Philip brought us some intricacies of (american) football and a baseball(-inspired) sudoku, Bill had his first anniversary setting GAS – and ended the month with a joke. Clover had her usual share of unusual puzzles :-)

Also at the first weekend of november there will be a Twitch stream (see the entry for October 26th for details).

Have fun solving!

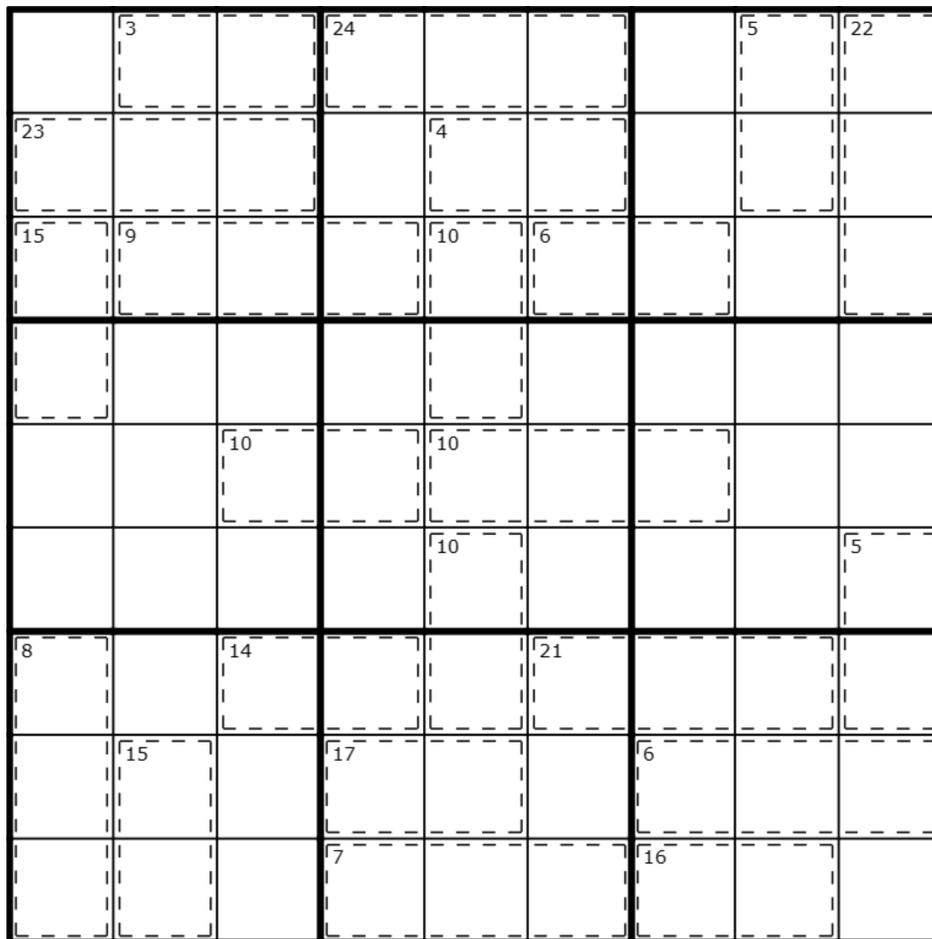**October 1, 2023: Full House**
Philip Newman

We've reached the end of 1 to 9 September, and we're a month away from No Theme November, so... uh... welcome to Ideas I Had While Driving October? (This may not be an actual thing. But hey, I might keep having ideas while driving.)

Today's **GAS** is a **Killer Sudoku**! See if you can figure out what idea I had in the car!

Normal sudoku rules apply.
Killer: Digits in cages cannot repeat and must sum to the total given.

GAS behind the scenes: I just typoed "list of sauropods" as "lust of sauropods".

Play on f-puzzles: https://f-puzzles.com/?id=ykgb2kac
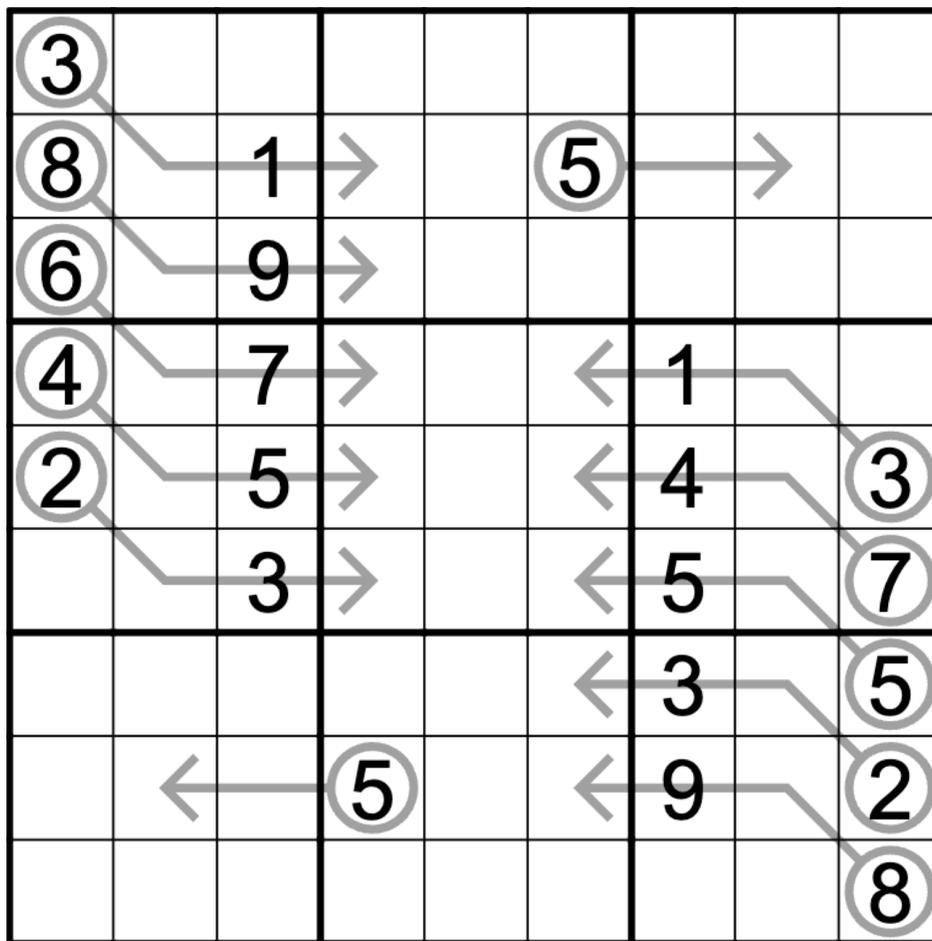Play on CTC App: https://tinyurl.com/ywvvx5m4

October 2, 2023: Average Arrows
clover!

"Pretty ugly." "Jumbo shrimp." "Sweet sorrow." Today's GAS is an **average arrows sudoku** - which is to say, it's *exceptionally average*. Perhaps its rules have been *clearly misunderstood* in the past, but whether you're an expert or an *advanced beginner*, keep your complaints to a *dull roar* while I explain with *bureaucratic efficiency* how to solve your way to an *approximate solution* without any *minor catastrophes* along the way.

Normal sudoku rules apply. Also, the average (arithmetic mean) of the digits along each arrow equals the digit in the attached circle. For instance, if a length 3 arrow contains 2, 4, and 9, then the attached circle would contain (2+4+9)/3 = 5.

Note: all averages must be exact, with no rounding!

If you're within 30 seconds of [the two-hat time], thank Bill - he requested a little bump for those of us who aren't mental math fans.

CtC: https://tinyurl.com/3z5a5cxn [no f-puzzles link today]

October 3, 2023: Next to Nine Sudoku
Bill Murphy

Happy Mean Girls Day to those who celebrate!

Been stuck in a bit of a low, a bit of a rut, a bit of constructor's block recently. It's fine, it happens to the best of us (and me too, hey-o), but I honestly nearly misssed it! Missed what, you say?

🥳🥳🥳 _**It's now my one year anniversary of setting GAS!**_ 🥳🥳🥳

Here's to many more puzzles, literally never learning from my mistakes and getting better looking with age.
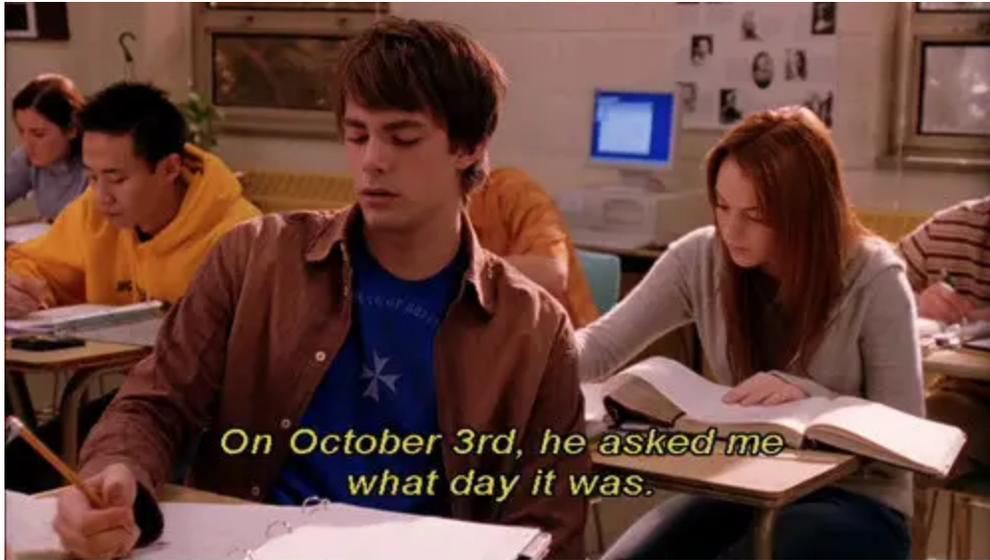Despite the writer's block, there's one thing I could always count on during the year and it's my ability to clown on/with Philip, so today's GAS is a **Next to Nine Sudoku**!

Normal sudoku rules apply. Clues outside of the grid give digits adjacent to 9 in that row or column.

f-puzzles: https://f-puzzles.com/?id=yvb7pj5p
CTC: https://tinyurl.com/5n7tfsby

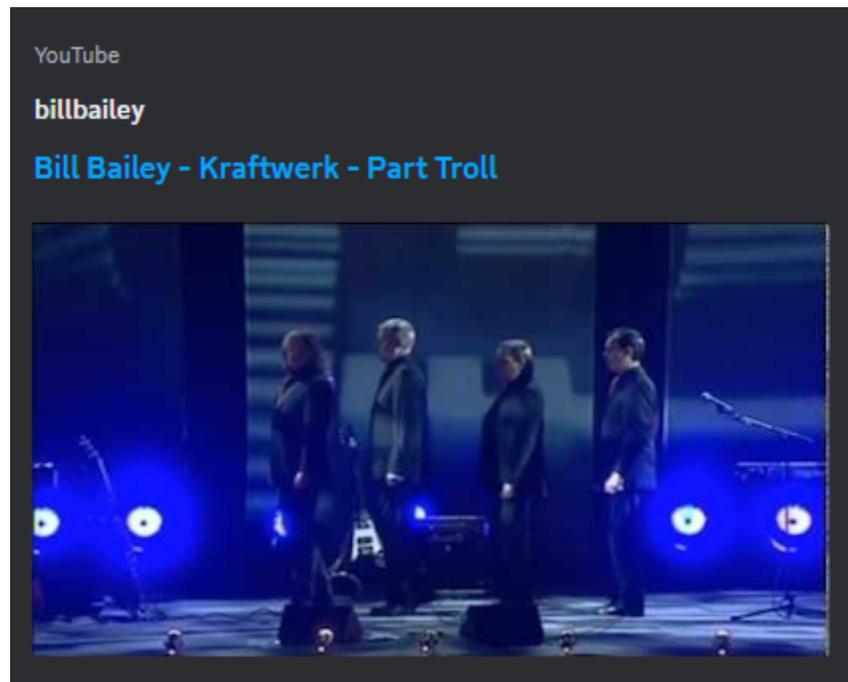On October 3rd, he asked me what day it was.

It's October 3rd.

October 4, 2023: The Hoagie Pokey
Philip Newman

In today's edition of "things Mark can't show which might entice those of you watching on youtube to join discord" (we need a snappier title for this), one of my favorite comedy bits by one of my favorite comedians, Bill Bailey!

https://www.youtube.com/watch?v=dwaxWoJPUC0

YouTube

billbailey

Bill Bailey - Kraftwerk - Part Troll

(Also, happy birthday clover!! I definitely remembered and did not just add this.)
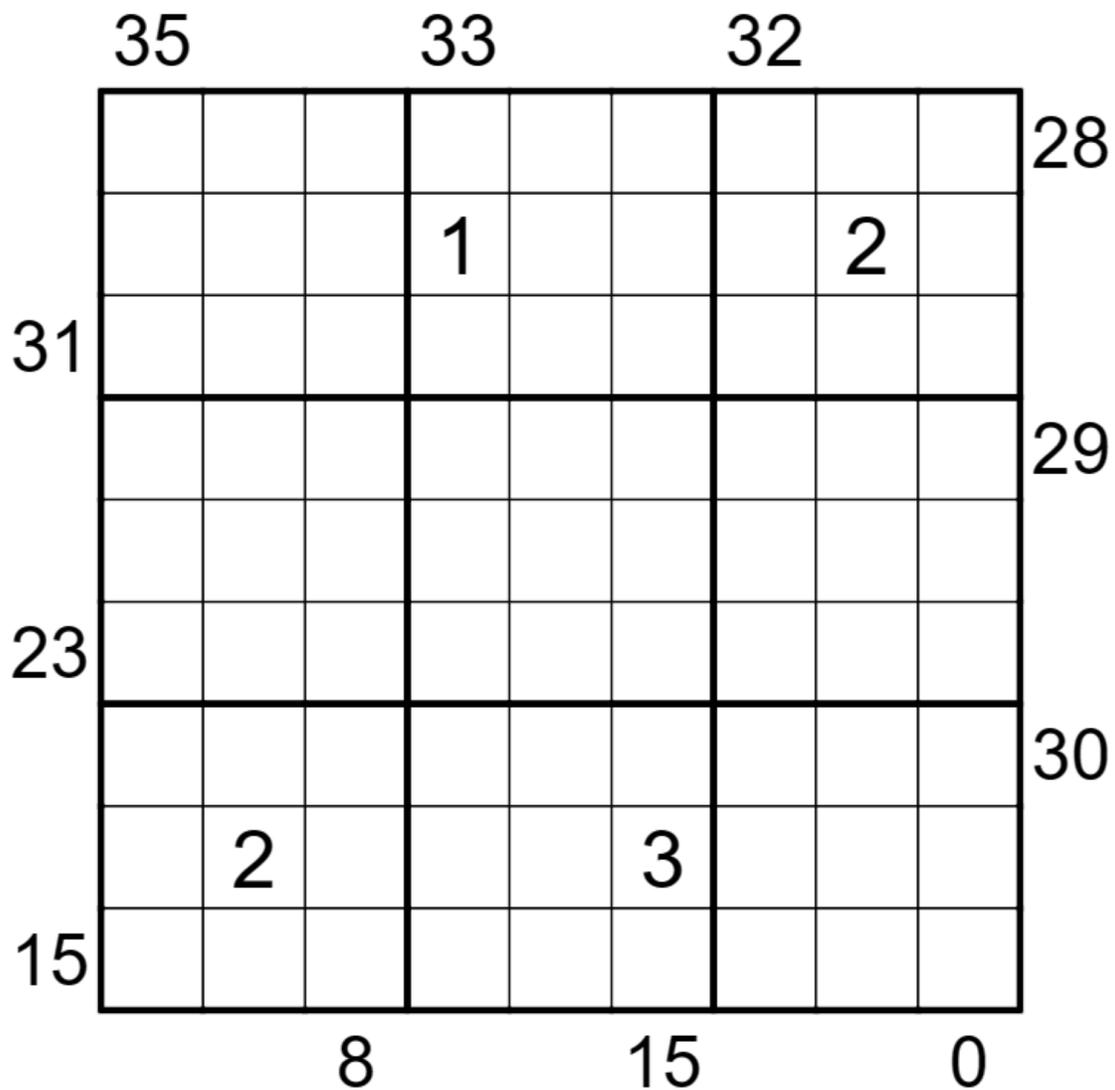
Today's **GAS** is a **Sandwich Sudoku**!

Normal sudoku rules apply.
Sandwich: A value outside of the grid is a sandwich clue — it tells you the sum of the digits between the 1 and the 9 in that row or column, not including the 1 and 9 themselves.

This one has a bit of math (look at all those big numbers!) so generous times today.

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Play on f-puzzles: https://f-puzzles.com/?id=ywfmnvs4
Play on CTC App: https://tinyurl.com/y6arh3ry
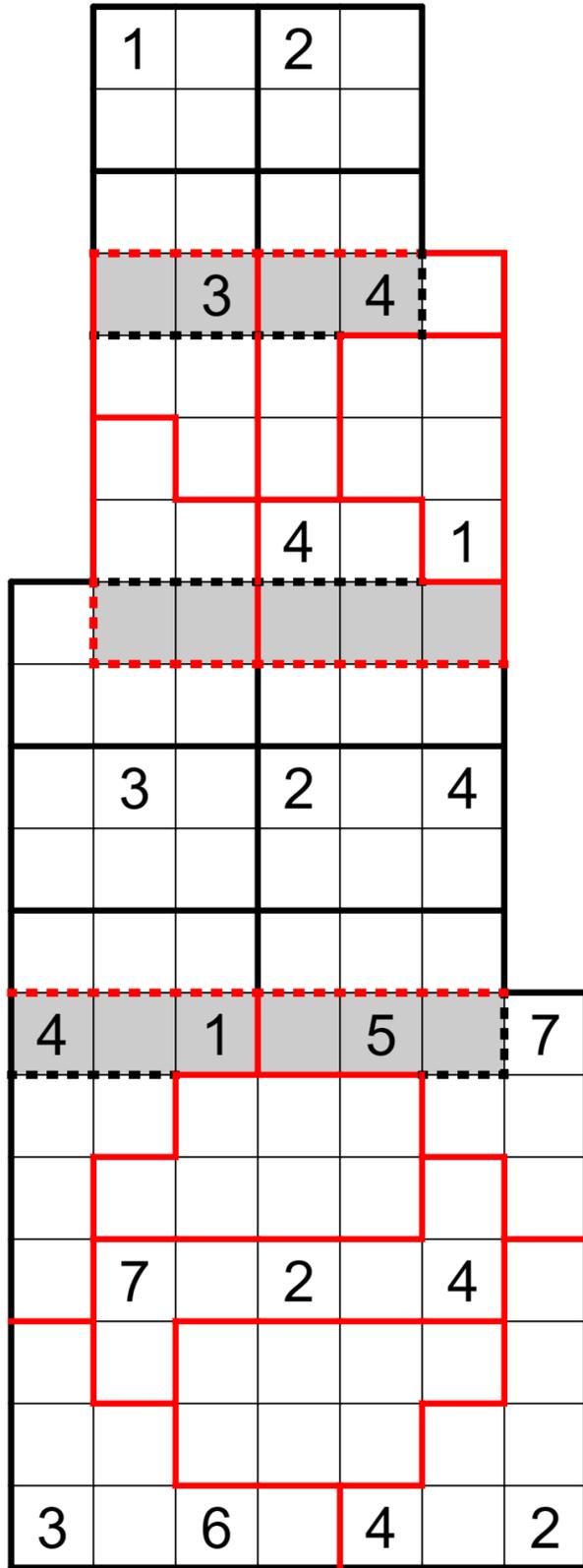
October 5, 2023: Matryoshka Sudoku
clover!

Today's GAS is a **matryoshka sudoku**. On a completely unrelated note, thank you for all of the birthday wishes yesterday! I spent the first half of the day snuggling with baby goats and petting their guardian dogs at a ranch outside of Denver, then the second half sitting in the car for nine hours only to discover that my refrigerator had defrosted itself and flooded the floor while I was away. Some days you're the dog, some days you're the hydrant.

The rules for this one are a little intricate, and you'll need to make an important decision about what format to solve in, so listen up!

This puzzle consists of overlapping 4x4, 5x5, 6x6, and 7x7 sudoku from top to bottom in that order. Within each grid, normal (irregular, if applicable) sudoku rules apply for that size. For instance, in the 5x5 grid, you should fill the grid with the digits 1 through 5 so that each digit appears exactly once in each row, column, and outlined region. Gray shading and dotted lines indicate overlap between regions of two adjacent grids.

You can solve this puzzle in either SudokuPad or Penpa. Either way, there will be automatic answer check. In SudokuPad, the puzzle will appear fairly small and you'll only be able to use your browser's functionality, if possible, to resize it. In Penpa, the puzzle is already displayed at a larger size and you'll be able to scroll to see the whole thing.

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October 6, 2023: Palindrome Outside Sudoku
Bill Murphy

I'd like to take a moment in today's GAS intro to shout out a contestant on the current season of GAS HQ's favourite show, Taskmaster. Sam Campbell makes me feel seen as someone who grew up in rural Australia, it really does do that to your sense of humour, I swear.

Today's GAS is a **Palindrome Outside Sudoku**! I'm not ~super worried~ about this one, especially the veterans of both GAS and Cracking the Cryptic (Hi Mark), but I'll throw a little explainer of a term you may have seen thrown around a lot on the channel and this discord, but if you're new to variant sudoku, this will probably help speed up your solve a little bit today.

Normal Sudoku Rules Apply. Clues outside the grid give digits that must appear in the first three cells as seen from the clue. Grey lines are a palindrome that must read the same back and forth.

GAS 101: [See Hints page at the end of this document]

f-puzzles: https://f-puzzles.com/?id=yv7l3c2f
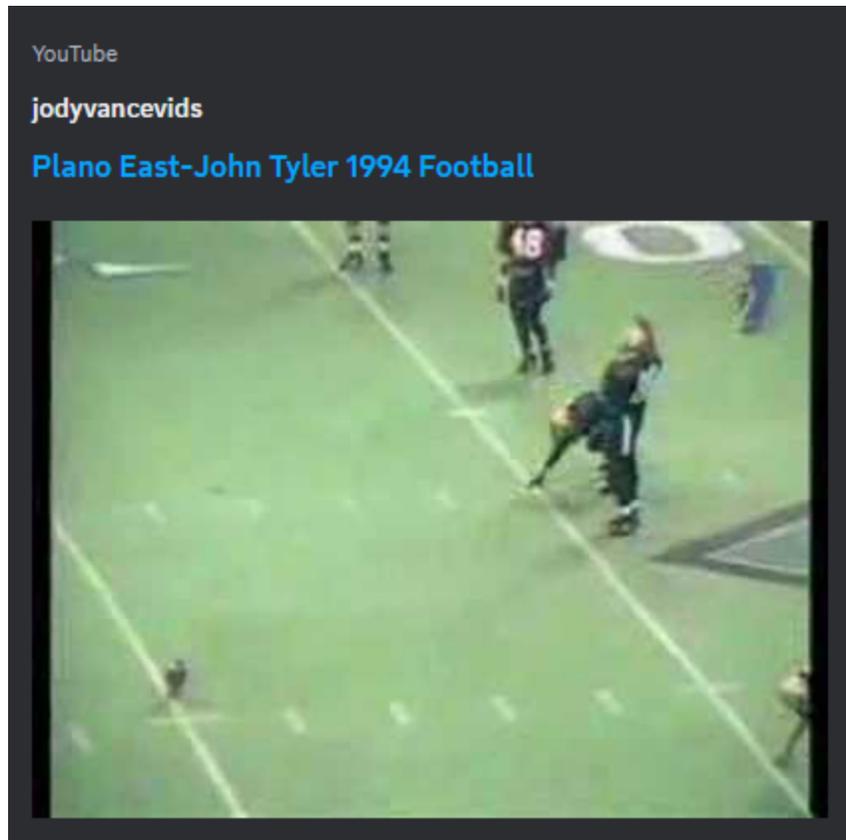CTC: https://tinyurl.com/ytemevev

October 7, 2023: Football Weather
Philip Newman

This has nothing whatsoever to do with today's **GAS** (a **Thermo Sudoku**), but watching Mark solve Bill's Football Sudoku [Link: see Hints page] reminded me that I should share my all-time favorite youtube video which doesn't involve one of my puzzles. (I recognize that this is not really the audience for an American football video but I promise it's worth the 5 minutes.)
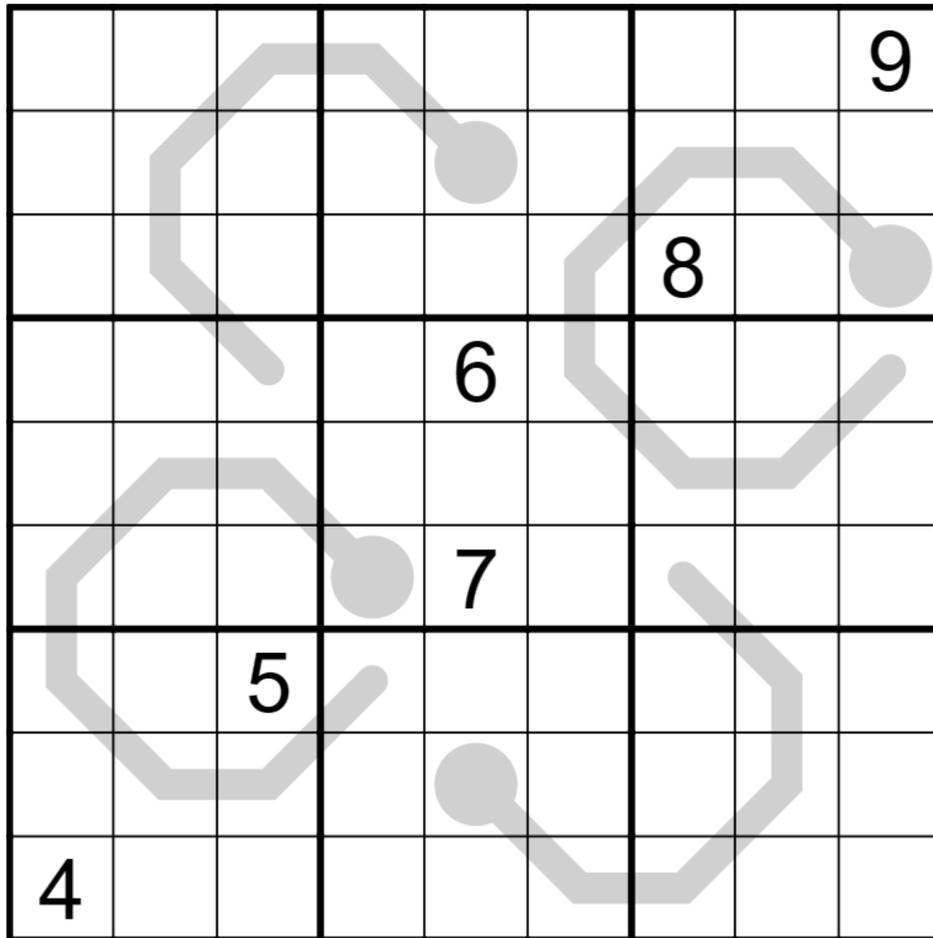
https://www.youtube.com/watch?v=ZHkABO0VwCg

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

Normal sudoku rules apply.
Thermo: Digits along thermometers must strictly increase from bulb to tip.

🤠🏈

October 8, 2023: Parity Lines Sudoku
clover!

The year is 20023. All of human society is divided along **parity lines**, with no further hope of entente between the progressive odds and the reactionary evens. This GAS was smuggled out from one of the last strongholds of coexistence: a near-mythical land where the two parities can coexist in a single puzzle. *Solve it and weep for our future.*

Normal sudoku rules apply. Along each gray line, either all digits are odd, or all digits are even.

f-puzzles: https://f-puzzles.com/?id=ykea3lwn
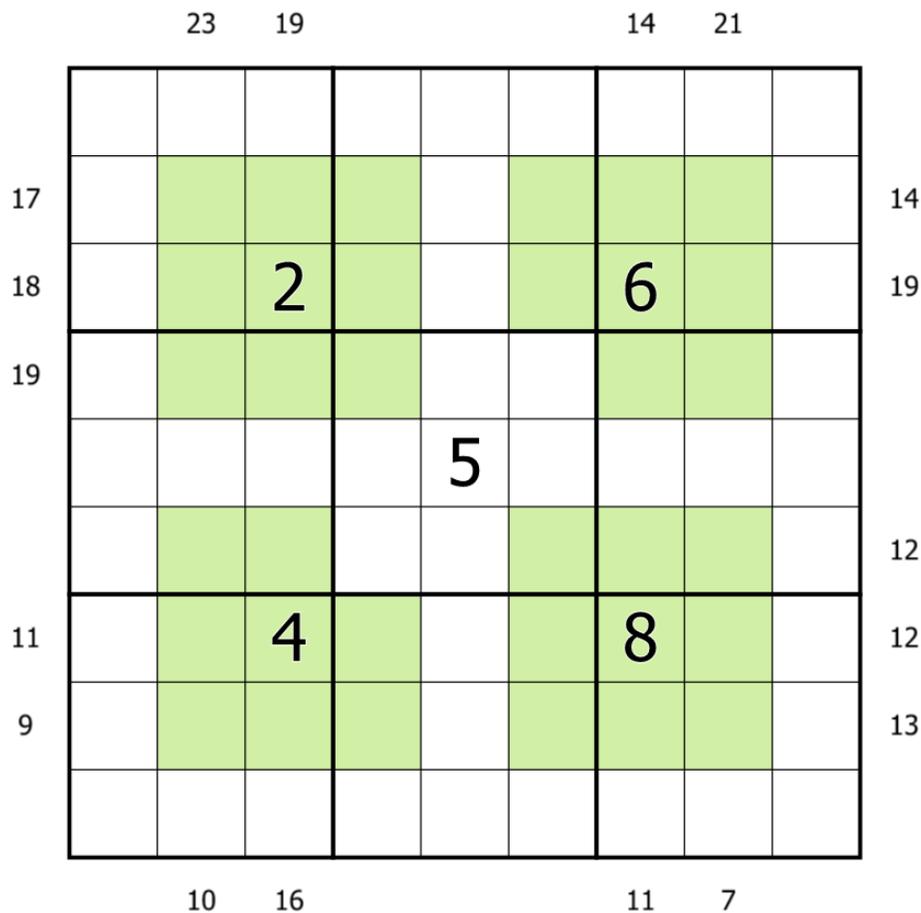CtC: https://tinyurl.com/2nzkxu37

October 9, 2023: Inner Frame Sum Sudoku
Bill Murphy

The year is 20023. All of human society is computers now, with no further hope of biological evolution. This GAS was smuggled out from the **Inner Frame, Sum** insurmountable odds were fought to bring this to you. *Solve it and weep for those permanently logged off.*

Normal Sudoku Rules Apply. Clues outside of the grid give the sum of the 2nd, 3rd and 4th cells as seen from that direction.
(The attached image highlights which cells are being summed, the given links are not highlighted. You may do the colouring if you choose.)

f-puzzles: https://f-puzzles.com/?id=yvd69zht
CTC: https://tinyurl.com/yc3dhdwb

October 10, 2023: Killer
clover!

The year is 20023. Philip has finally replaced his fallible human meat body with cold, hard titanium. Somewhere deep inside, in the intricate workings of a brain made of nanites and artificial synapses, the urge to create **killer sudoku** remains.

(Hi folks, Clover here, Philip's at a doctor's appointment this morning so we've swapped days, all is well but feel free to send him some extra love!)

Normal sudoku rules apply. Digits in cages do not repeat and must sum to the indicated totals.

f-puzzles: https://f-puzzles.com/?id=ykgwuku7
CtC: https://tinyurl.com/4hfdzvvt

Oct. 11, 20023: Oct. 10, 2023
Philip Newman

The year is 20023. Philip has finally woken up to post the October 10, 2023 GAS.

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

There are two versions today; the unspoilered image is the original version with is a touch hard for GAS; the actual GAS has two extra givens. I've included links to both below, in case you want an extra challenge. It's the least I can do after posting the puzzle 18000 years and a day late.

(My appointment yesterday was imaging of my left shoulder, expect an update with my next GAS!)

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.)

Without Extra Givens (original, non-GAS)
https://f-puzzles.com/?id=ymrgnp73
https://tinyurl.com/26fzbndd

⇊⇊ (The GAS version was spoilered and so is on the next page ⇊⇊

GAS version: 🤠 🤖

	⑩			⑩			⑳	㉓	
							3		
					1				
⑩						9			
						2			
⑩			4		5		6		
				8					
⑳				1					
㉓					9				
			7						

GAS
https://f-puzzles.com/?id=yty3c9lg
https://tinyurl.com/jt9xx38m

October 12, 2023: Myself
Bill Murphy

Traveller, Stop!

if you take this road you will be fundamentally changed for better or worse
you will return from this journey irrevocably altered in ways you cannot comprehend
before you undergo this transformation
no one on earth will understand the metamorphosis except for those who experienced it
with you
the people who love you may cease to truly know you
walking backwards will not help you
walking forwards is inevitable
you cannot stand still
you may not recognise your home, it cannot stand still either
if you survive this, you will be part of a world that does not yet exist
if you die, you will come back wrong

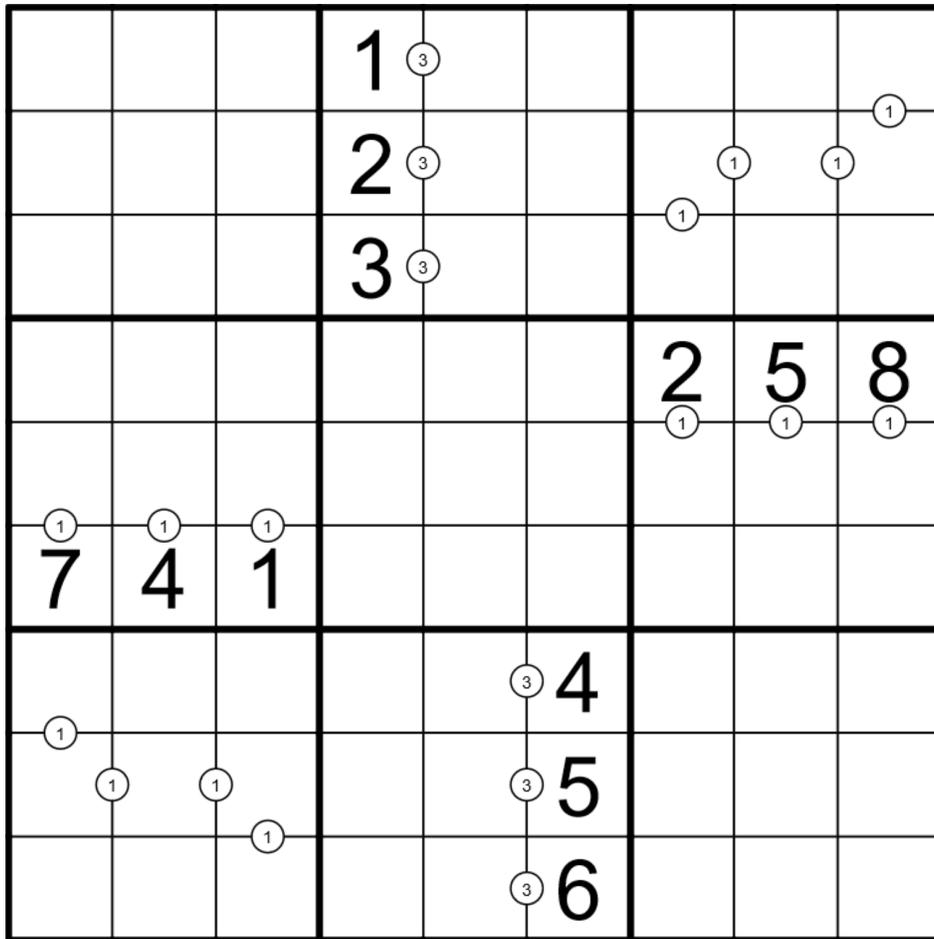*Traveller, you have been warned and now you must go*

– Beckett Jones, *"The Traveller's Warning"*

https://ko-fi.com/s/fc393595f1

Today's GAS is a **Difference Sudoku**. Today's GAS was brought to you by the idea that maybe the idea that knowing everything by your second rodeo is crazy, but it does help.

Normal sudoku rules apply. Digits separated by a white dot must be differ by the number in the dot.

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

October 13, 2023: That's 3 in the Top Right
Philip Newman

Zoe says hi, she's helping me write this intro. 👋

So, clover! and I swapped Tuesday because I was getting an arthrogram/MRI of my shoulder. I had my follow-up yesterday which confirmed what the doctor suspected: I have a torn labrum. Good times. (It's likely just a wear-and-literal-tear thing, but I'm going to claim that I tore it trying to solve a whispers puzzle.)
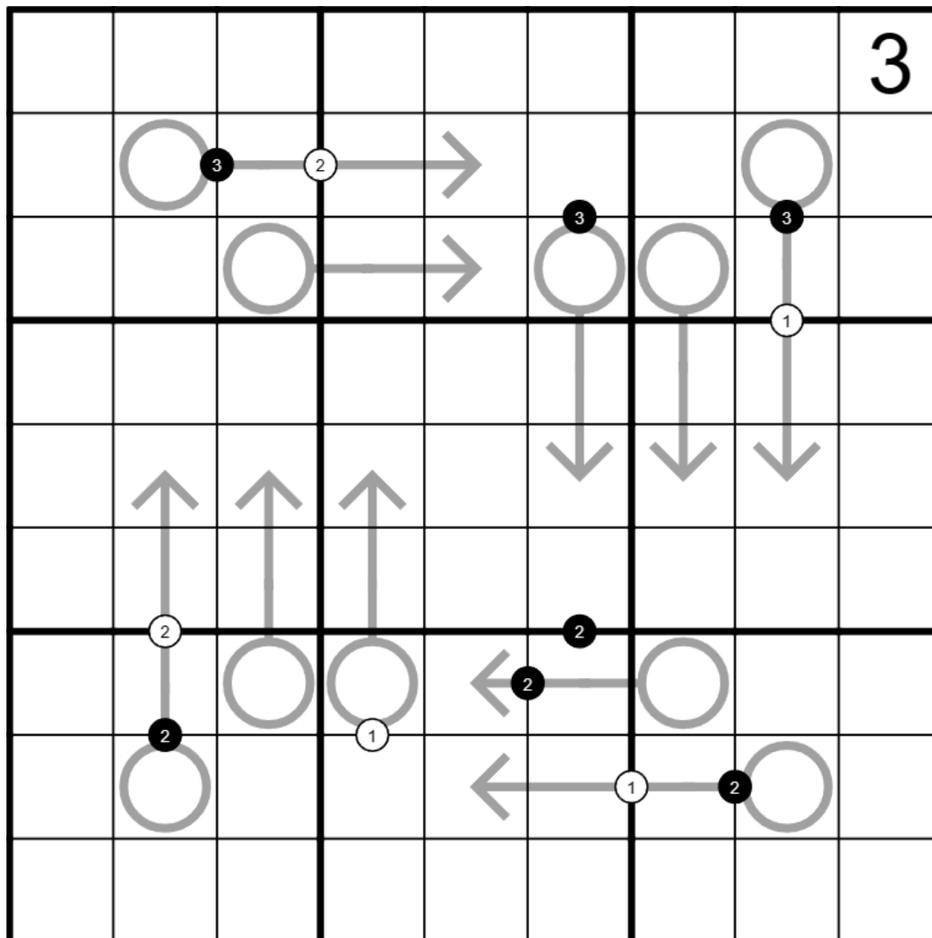
Will be having surgery sometime soonish, and I'll be in a sling for a month; I'd better crank out a bunch of puzzles this weekend so I have a backlog!

Normal sudoku rules apply.
Arrow: Digits along arrows must sum to the total given in the corresponding circle.
Difference Pairs: Digits in cells separated by a white dot must have the difference given.
Ratio Pairs: Digits in cells separated by a black dot must have the ratio given.

Play on f-puzzles: https://f-puzzles.com/?id=ywayluvu
Play on CTC App: https://tinyurl.com/3ceakdz7

October 14, 2023: Zone Sudoku
clover!

Gosh, I'm really in the **zone** (sudoku) this morning. The end zone? The drop zone? The demilitarized zone? The AutoZone? You'll have to solve this GAS and find out.

Normal sudoku rules apply. Small clues in cages indicate digits that must appear somewhere within that cage.

f-puzzles: https://f-puzzles.com/?id=ynm6wrb2
CtC: https://tinyurl.com/5n7dwsdx

October 15, 2023: Borealis Dancing / After The Earthquake (Double)
Bill Murphy

Hey! I'm in the middle of a cute date right now with my girlfriend (we completed an escape room, had Greek food, she beat me at MarioKart in an arcade and we're going to a show after this) and I'm just writing this over a pint. (She says hi to you all)

Today's GAS is two **Classic Sudoku**!
Put the digits 1-9 in each box, row and colum.

[The times are for the pair]

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

Classic 1
f-puzz: https://f-puzzles.com/?id=ylyyn78u
CTC: https://tinyurl.com/3j96v549

⇊ ⇊ (The second puzzle is on the next page) ⇊ ⇊

Classic 2
f-puzz: https://f-puzzles.com/?id=yvkvvkwm
CTC: https://tinyurl.com/569rd48z

October 16, 2023: Procrastination
Philip Newman

In today's edition of "Philip uses GAS intros like a newsletter":

1. My surgery is already scheduled! It's in two weeks. [Insert epic backlog setting montage here.] Actually, I won't be totally offline after the surgery, I'll just be one-handed. Streaming without the use of my left hand for four hours just a few days after surgery should be entertaining, so join us at https://twitch.tv/sudokucon to watch the chaos!

2. Today's **GAS** (another **Classic Sudoku**) is a great example of my tendency to procrastinate. I set this puzzle last month with the intent of using it as an example for a youtube sudoku theory video, and I've put off posting it for weeks so that I could include a link to that video. Predictably, that video is not ready yet. Instead, I am going to say that I will include a link in my next GAS in order to put pressure on myself to actually get it recorded.

3. Does every list really need at least three items? Could I have gotten away with two, or would the style gods smite me for such hubris?

Normal sudoku rules apply. And that's it!

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

🤠 🦥

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

Play on f-puzzles: https://f-puzzles.com/?id=yuzk9f6p
Play on CTC App: https://tinyurl.com/yvep35jt

October 17, 2023: Zone or Killer?
clover!

Some excerpts from the files of the GAS complaint department:

Zoney Zonerson [🥳 x 487]: What's with all the killer sudoku? It makes me want to kill 'er sudoku, get it? Ha ha ha!

KillerSudokuFan123: Every time I see a puzzle that has cages but isn't my beloved killer, I cry actual tears. Why are you making me cry, GAS team? Why?????

But ya know, I think today is one of those days where we can make everybody happy! 😊 Here's a **killer sudoku / zone sudoku ambiguity** GAS. Enjoy!

Normal sudoku rules apply.

Each cage is EITHER a killer cage, or a zone cage. In killer cages, all of the digits in the cage sum to the value indicated by the small clue in the corner of the cage. In zone cages, the clue in the corner tells you some (or all) of the digits that appear in that cage: for instance, a clue of "23" would mean that the cage contains both a 2 and a 3. You'll have to decide which cages are which!

f-puzzles: https://f-puzzles.com/?id=ypwlekya / CtC: https://tinyurl.com/ymuxbba3

October 18, 2023: Bull Believer
Bill Murphy

Anyone got a spare $500 so I can go to Golden Plains Music Festival? **I am *absolutely* not good for it**. No? OK.

It's my favourite place on earth. There's one tradition, among many, of *'The Boot'*. Legend has it, one year, local institution and publican James Young had imbibed a few things of various legality and was very much enjoying the band Old Crow Medicine Show, so he ripped off his boot and held it aloft in a show of enjoyment. To his surprise, everyone around him also did the same thing and ever since it's been a tradition to rip a shoe off and hold it aloft as a sign of "This is the best set this weekend".

In lieu of me not being able to rip my shoe off for the band Wednesday in March next year, today's **Killer Sudoku** goes out to them. 😊

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

P.S. This sudoku is unique without givens, but you do need to spot two of the funniest hidden singles I've ever seen.

f-puzzles: https://f-puzzles.com/?id=yn6a7j3n
CTC: https://tinyurl.com/yyv6u8rw

October 19, 2023: Free Range Killer
Philip Newman

I stopped procrastinating! Here's the video on my previous GAS ("Procrastination"):
https://youtu.be/no1CNbdDSU0 (there's a bonus puzzle in the description)

Today's **GAS** (and my next one) is part of a proud tradition at GAS HQ. Occasionally, I
have to take some sort of medicine which makes me a bit loopy (pain medication after
surgery, benadryl for seasonal allergies). Rather than taking it easy like a normal
person, I solicit variant suggestions from the team and set while drugged. (WARNING:
DO NOT OPERATE HEAVY MACHINERY TO SET SUDOKU. THIS DOESN'T HAVE
ANYTHING TO DO WITH THE DRUGS, IT JUST DOESN'T MAKE SENSE.)

Bill suggested this variant ("Quadruples, but it's the sum of the surrounding cells") which
probably has a name already but I'm thinking of it as a sort of overlapping killer sudoku
without the restriction on repeated digits (thus "Free Range Killer").

clover suggested something absolutely cursed, so you've got that to look forward to.
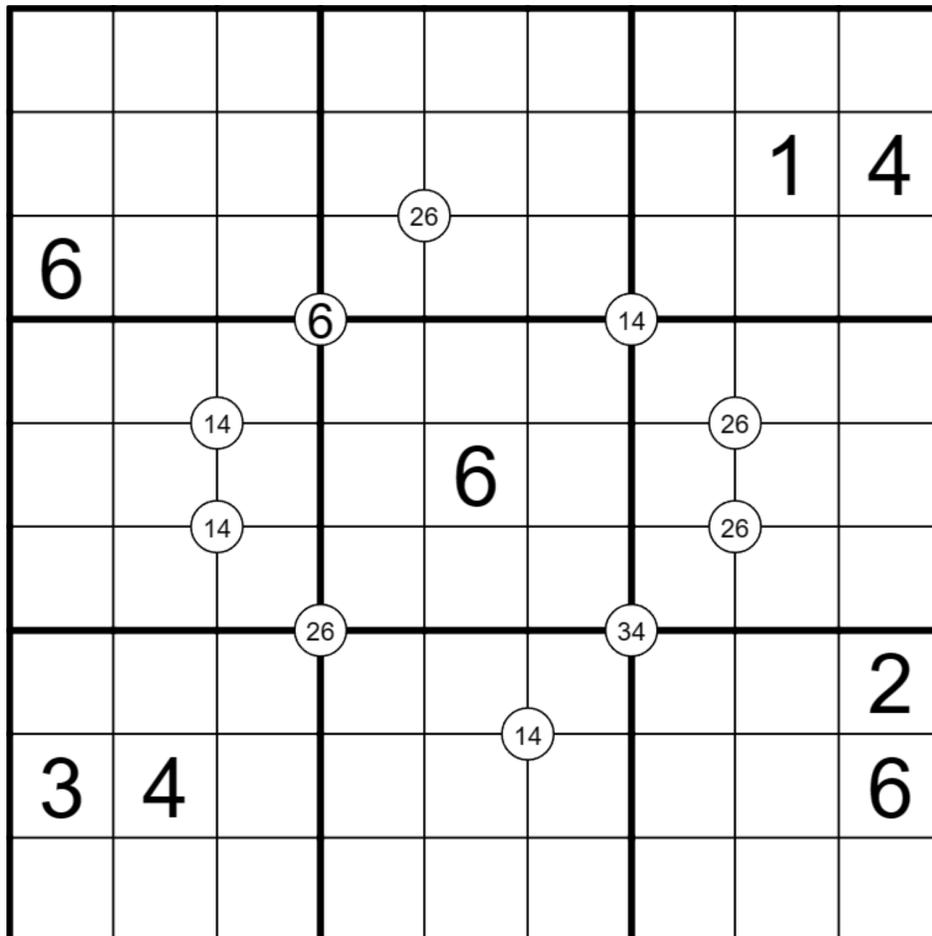
Normal sudoku rules apply.
**Values in corner circles give the sum of the digits in the surrounding four cells
(which may repeat if allowed by other rules).**

🚨 These are not Quadruples, if you try to solve this as a Quadruples puzzle it will
break horribly. 🚨

Have a bit of extra time because maths.

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

[Repeat of the warning: 🚨 These are not Quadruples, if you try to solve this as a Quadruples puzzle it will break horribly. 🚨]
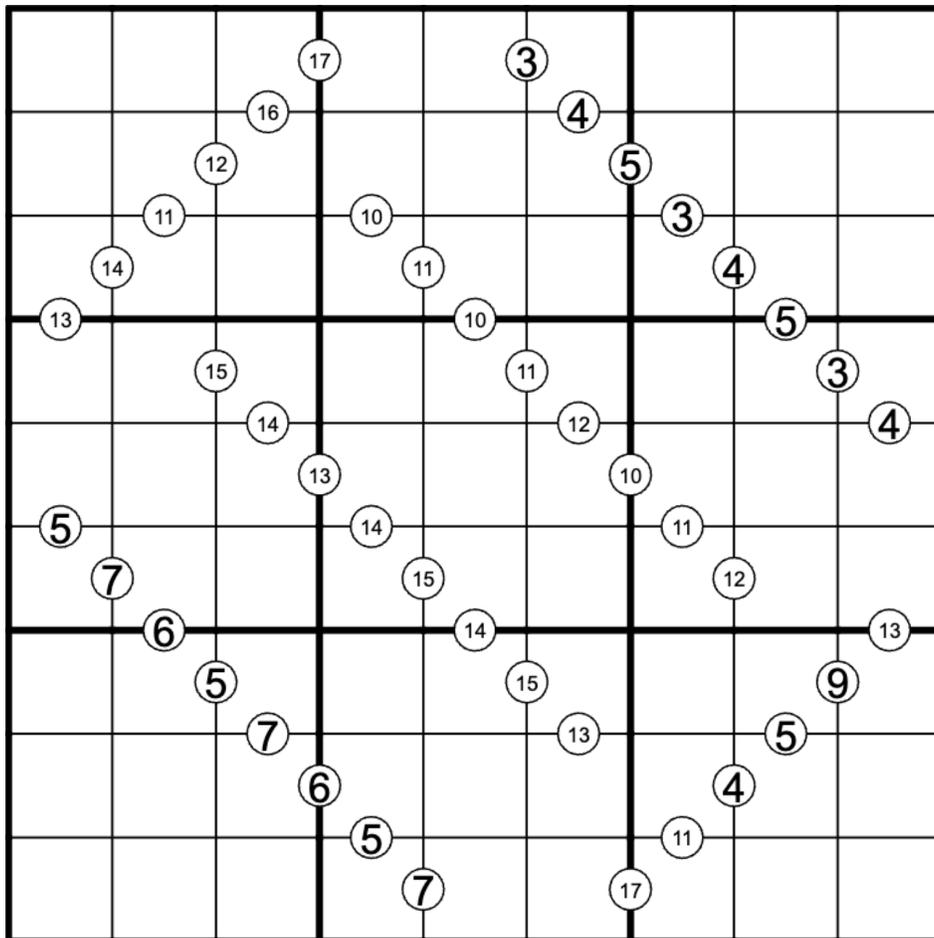

Play on f-puzzles: https://f-puzzles.com/?id=yruqsqrn
Play on CTC App: https://tinyurl.com/rnxzn6ty

October 20, 2023: Neighbor Sums
clover!

This **neighbor sums** GAS features a variant from round 5 of the 2015 Sudoku Grand Prix, written by Serbia. Unrelated, but Mr. Rogers would have liked this one very much if he was still with us. Won't you be my neighbor? 😊

By the way, dress rehearsals for SudokuCon Live!, our fundraiser event for SudokuCon, start tonight. GAS team is the first group to rehearse. 😅 Cross your fingers for us - the actual fundraiser is in just 15 days!

Normal sudoku rules apply. If two cells are separated by a white circle, the digits in those two cells sum to the value in the circle.

f-puzzles: https://f-puzzles.com/?id=yvcnrpfm
CtC: https://tinyurl.com/59b9nba9

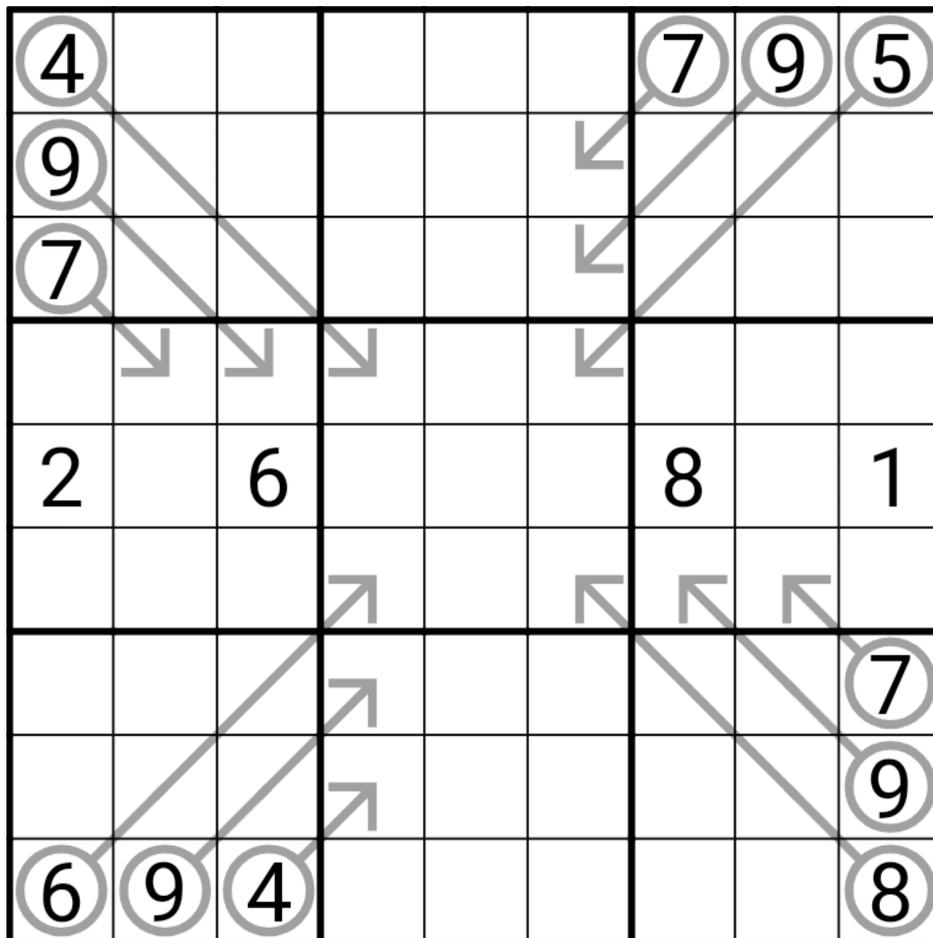**October 21, 2023: Same Ghost Every Night**
Bill Murphy

Hi!

I made today's sudoku on a no good, very bad day in what is, to be fair, a long and sad year. I think I have talked enough about myself on the internet that I don't really want to rehash and to be honest, wish I could take back but also don't begrudge myself because it truly is remarkable to hold so much grief that you do not know where to put it.

The day turned out ok, turns out, even with the most desolate emotional states, I can make some pretty ok **Arrow Sudoku**. Today's GAS (and the one you'll see from me next time) was my coping mechanism. It is probably on the trickier end for what I like to post for GAS, but I make like 15 puzzles a month for GAS for you, so every now and then I can have one for me, especially a small tribute to myself and others who still find themselves standing despite all the bad days. Have some generous hat times. Life's too short not to have a cool hat. We're all still here and life is beautiful like that.

Normal sudoku rules apply. Digits along an arrow must sum to the digit in the bulb.

f-puzzles: https://f-puzzles.com/?id=yka6rfsh
CTC: https://tinyurl.com/yqmfyjua

October 22, 2023: Botez Gambit
Philip Newman

Today's **GAS** is an **Antiqueen Sudoku**! Thanks, clover!.

Some trivia about antiqueen:

①It would have just been called antibishop, but the Pope intervened at the 2006 World Sudoku Championship.
②The 2007 World Sudoku Championship was held in the CZECH Republic... coincidence???
③Despite the name, it was Queen Victoria's favorite sudoku variant.
④WFM Alexandra Botez famously forgot about this constraint while solving sudoku on stream, resulting in a loss on time.
⑤Antipawn digits promote to antiqueen when reaching the last @Rangsk.

Normal sudoku rules apply.
Antiqueen: Cells separated by a (chess) queen's move cannot both contain 5.
(Equivalently, no diagonal of any length can contain more than one 5.)
🚨 Remember, the constraint only applies to 5. 🚨

f-puzzles: https://f-puzzles.com/?id=yrtrb5bd / CTC App: https://tinyurl.com/4fsapphy

October 23, 2023: Repeated Neighbors
clover!

I assure you, today's GAS isn't a second attempt (after Friday's 'neighbor sums') to enforce my preferred spelling of the word 'neighbor' on the rest of the GAS team.

In today's **repeated neighbors** sudoku, normal sudoku rules apply. Also, gray cells have at least one repeated digit among their (up to four) orthogonally adjacent neighbors. For instance, because r1c4 is gray, there must be a digit that appears two times within r1c3, r2c4, and r1c5.

f-puzzles: https://f-puzzles.com/?id=yqqtexp3
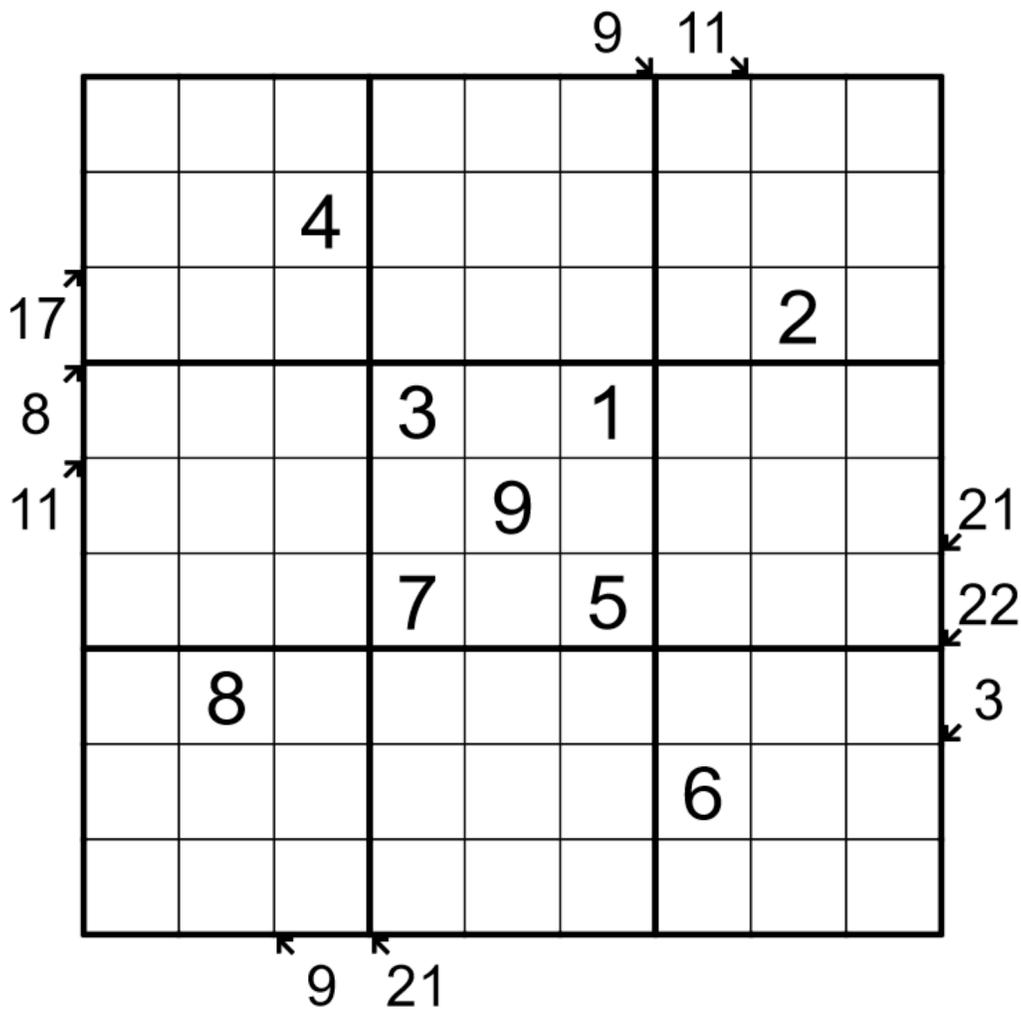CtC: https://tinyurl.com/3fbwy42j

October 24, 2023: Alphabet City
Bill Murphy

Thanks to friend of the channel @MikoKisai, a lot of stats get thrown around and one that comes up is "Bill is the only GAS setter who hasn't given Mark a dinosaur" and I'm always like "Yeah, but why would I? This isn't Genuinely Monstrous Sudoku" (I've got those too Mark, call me 📱 😎)

It's way more fun for me to give Mark frankly unpronouncable dinosaurs to pronounce and to write frankly very cheeky stuff in the intros like "Today's **GAS** is just a **Little Killer Sudoku**. Just a widdle kiwwer. It's a widdle cute little baby sudoku. It's such a cutiepie."

MWAHAHAHAHAHA

Normal sudoku rules apply. Clues outside the grid give the sum of digits along the indicated diagonal.

October 25, 2023: To Color or Not To Color
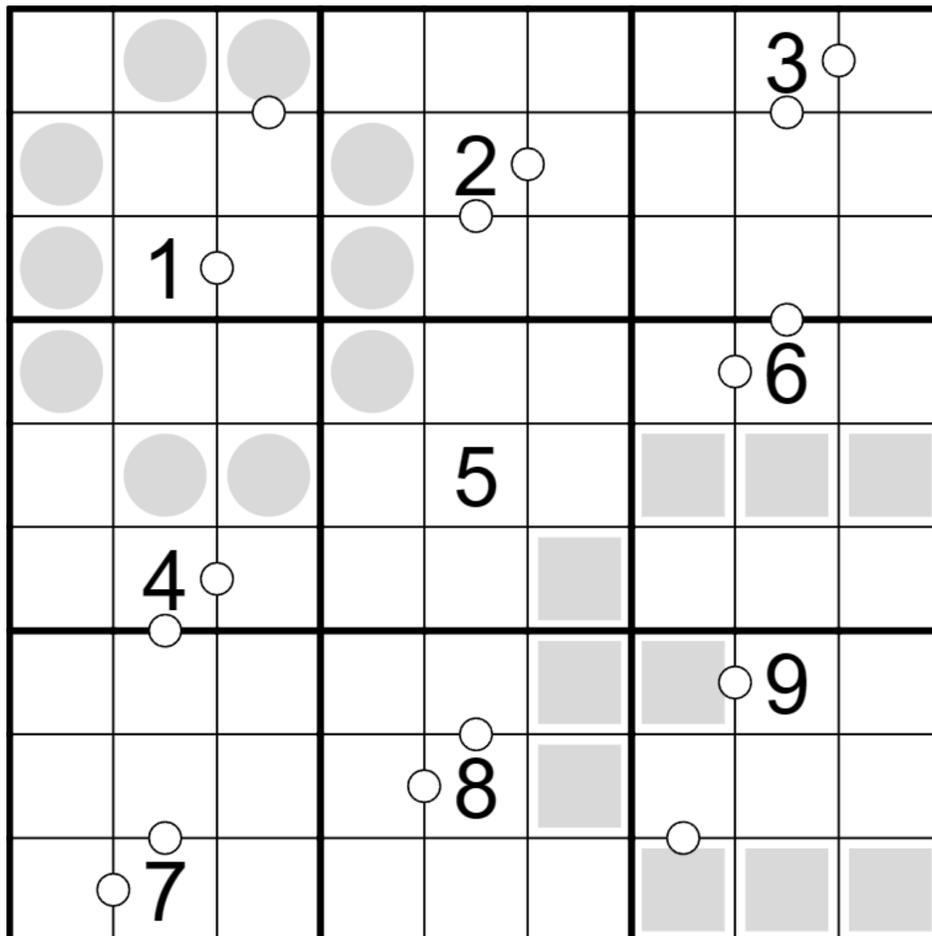Philip Newman

Did you know today is Wednesday? At least it is in the US, I don't know what day it is where you are, never mind if you aren't solving it the same day.

Today's **GAS**, an **Odd/Even Consecutive Pairs Sudoku** is late not because I forgot I was posting GAS on Wednesday, but because I forgot today is Wednesday! It's been a weird week. (Someone remind me when it's Saturday, I don't want to accidentally start working on the weekend.)

Normal sudoku rules apply.
Odd/Even: Digits in grey circles must be odd; digits in grey squares must be even.
Consecutive Pairs: Digits in cells separated by a white dot must be consecutive (have a difference of 1). (No negative constraint - other pairs of digits may also be consecutive.)

Play on f-puzzles: https://f-puzzles.com/?id=yqrqvrm2
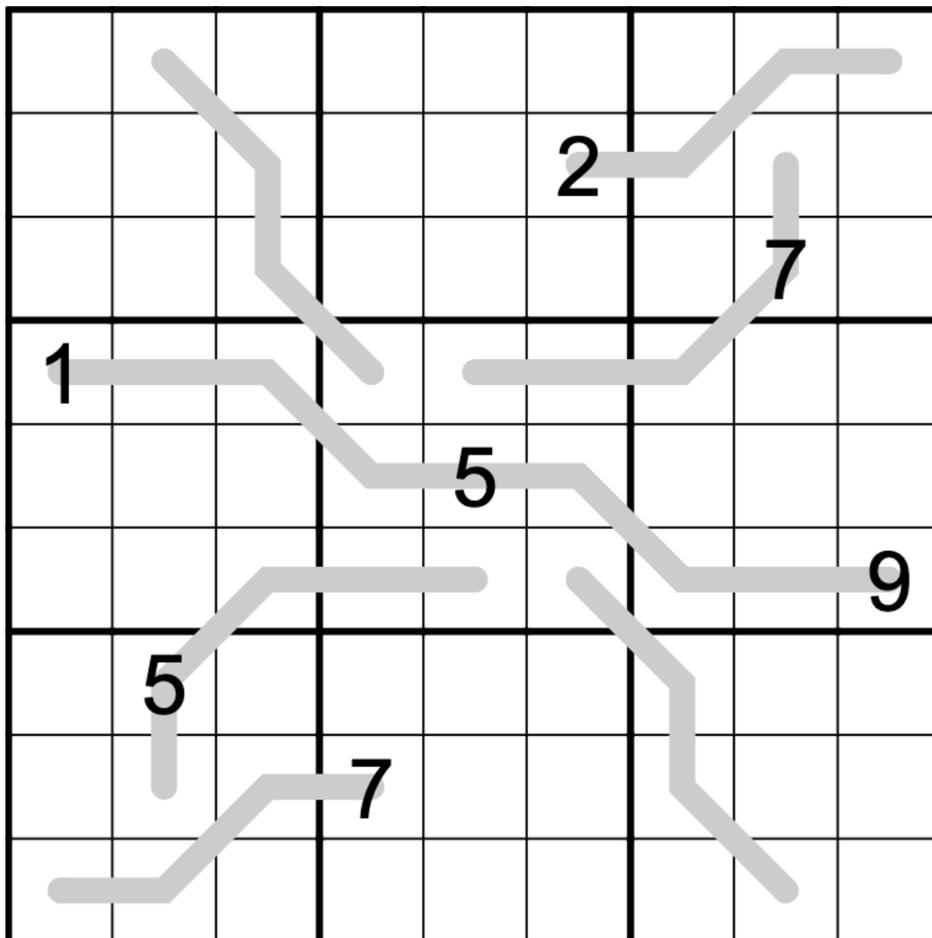Play on CTC App: https://tinyurl.com/53474xfh

October 26, 2023: Run-On Renbans
clover!

GAS HQ is a bit messier than usual this morning. Not just because Philip can only clean the side of his desk that he can reach with his single functioning arm, but also because we've been throwing puzzles around the place with reckless abandon. We're too busy to clean up! We've got a **24-hour livestream** to think about!

This is another reminder that the SudokuCon livestream starts at [Saturday November 4, 18:00 UTC / 2pm (New York) / 5am Nov 5th (Sydney)]. Join us at https://twitch.tv/sudokucon or regret it forever.

Today's GAS is a **run-on renbans** sudoku! Normal sudoku rules apply. Also, along each line, every group of three contiguous digits must form a set of consecutive integers, in any order. Digits may repeat along lines, but must not repeat within any set of three contiguous digits.

For instance, the line 35465765 is valid, because all sets of three contiguous digits along the line (354, 546, 465, 657, 576, and 765) form sets of consecutive digits.
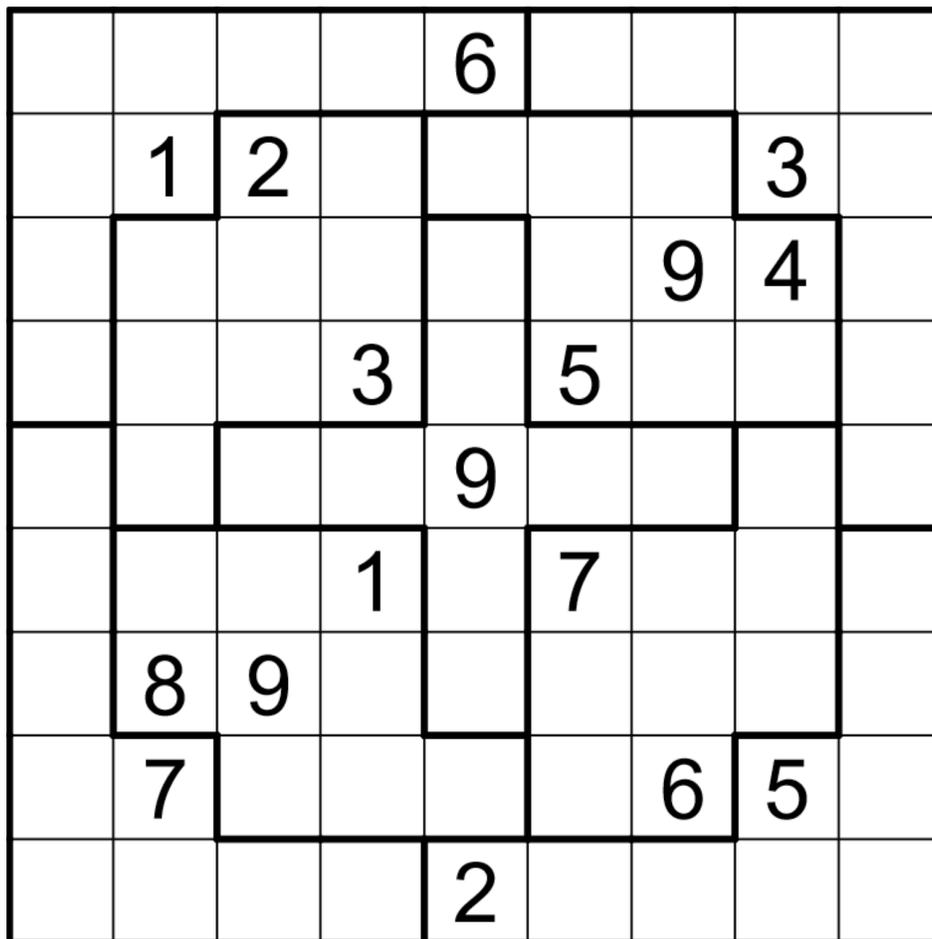

f-puzzles: https://f-puzzles.com/?id=ytz84qtf
CtC: https://tinyurl.com/3fhan2ba

October 27, 2023: Polacrilex Kid
Bill Murphy

I failed a calculus exam as a teenager because I was sitting in the middle of two identical twins. It was impossible to differentiate between them 🤷‍♂️

AND IF YOU THOUGHT THAT WAS IRREGULAR, I BET YOU CAN'T WAIT FOR TODAY'S **IRREGULAR SUDOKU**

Place the digits 1-9 in each row, column and outlined region.

f-puzzles: https://f-puzzles.com/?id=yu9ut69g
CTC: https://tinyurl.com/pwfp434w

October 28, 2023: Rounding the Bases
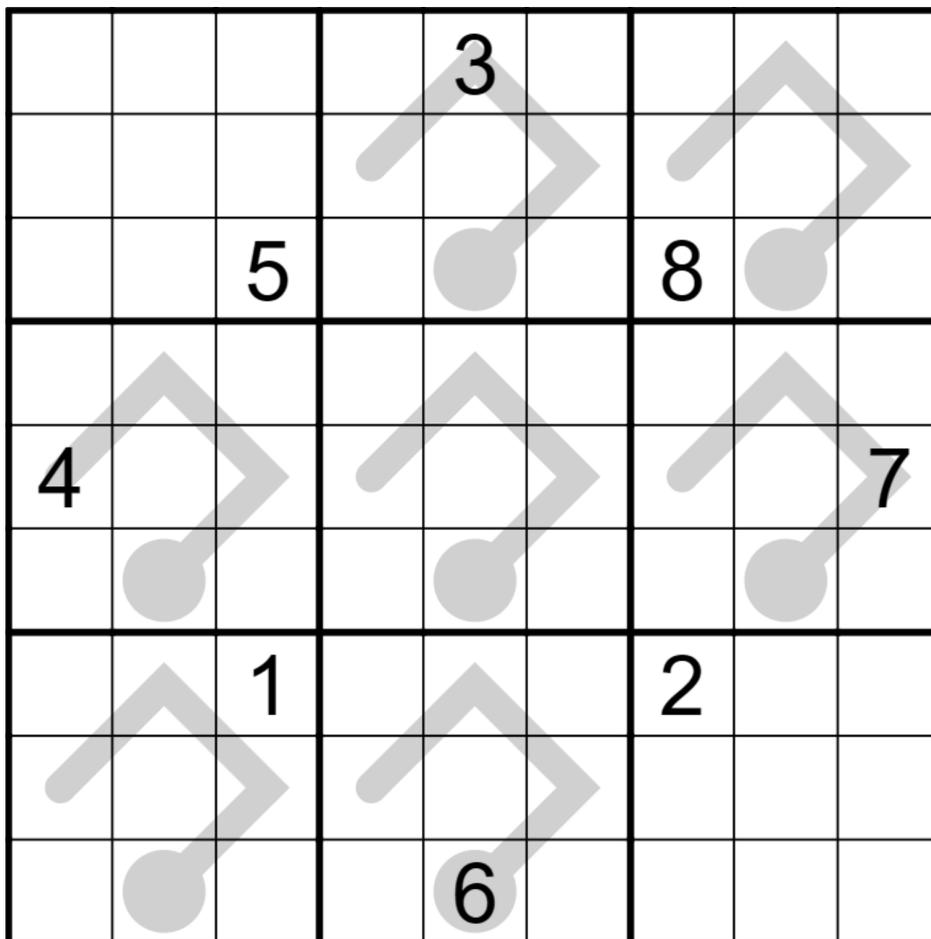Philip Newman

I wasn't consciously thinking of baseball when I set this, but... the Rangers are in the World Series so that probably had something to do with it.

Rather than write a lengthy intro, I'll just leave this space blank for Mark to explain the rules of baseball in a month or so.

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

Normal sudoku rules apply.
Thermo: Digits along thermometers must strictly increase from bulb to tip.

Play on f-puzzles: https://f-puzzles.com/?id=2xdjresr
Play on CTC App: https://tinyurl.com/vcmwaawb

October 29, 2023: Distance Sudoku
clover!

They're going the **distance (sudoku)**
They're going for speed (sudoku)
They're all alone (all alone)
All alone in their time of need
They're solving, evolving, and marking the grid
And that's how a distance sudoku gets did
They're going the distance!

(with apologies to Cake)

Normal sudoku rules apply. Clues outside of the grid each give a pair of digits and a distance. That pair of digits must appear in the order shown (left to right or top to bottom), and the distance from one to the other must be the number of steps indicated. For instance, the clue '7-2: 1' to the left of a row would indicate that 2 appears to the immediate right of 7 in that row.

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

CtC: https://sudokupad.app/qcgfruionw [no f-puzzles link today]

October 30, 2023: Expanded Sudoku
Bill Murphy

3 guys are hiking through the woods when they find a lamp. One of them picks it up, rubs it, and out pops a Genie.
It booms *You have finally freed me after all these years, so I'll grant each one of you 3 wishes.* The first guy blurts out *I want a billion dollars.* BAM, he's holding a printout of his account balance with $1,000,000,003.50
The second man ponders, then says *I want to be the richest man alive.* BAM, he's holding papers showing his net worth is now well over 100 billion.
The third guy considers this saying *I want my left arm to rotate clockwise for the rest of my life.* BAM, his arm starts rotating.
The Genie asks for their second wish.
First guy says: *I want to be married to the most beautiful woman on earth.* BAM, a stunning beauty wraps herself around his arm.
Second guy says *I want to be handsome and charismatic, so I can have every girl I want.* BAM, his looks change and the first guy's wife immediately starts flirting with him.
Third guy says *I want my right arm to rotate counter-clockwise until I die.* BAM, now both his arms are rotating, in opposite directions.
The genie asks them for their third wish.
First guy says *I never want to become sick or injured, I want to stay healthy until I die.* BAM, his complexion improves and his knees don't bother him.
Second guy says *I want to stay 29 forever.* BAM, he looks younger already.
Third guy says *My last wish is for my head to nod back and forth.* BAM, he's now nodding his head and flailing his arms.
Genie wishes them good luck, disappears, and the men soon go their separate ways.

You can have the rest of this joke next time. Today's GAS is an **Expanded Sudoku**.
Put the digits 1-9 in each box, row and column. Rows and columns continue across the blank space.

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

Penpa: https://tinyurl.com/yvwlg9kw
CTC: https://tinyurl.com/ybjpanh7

October 31, 2023: I Know Kung-Fu
Philip Newman

[Posted by Bill Murphy]

Hey! I'm not Philip Newman, but his shoulder needs to recover after carrying so many **German Whispers** lines for so long and I just platinum trophied Spiderman 2 so I can finally put down the controller and cover for Philip today!

(Sidebar: My thoughts on Spiderman 2 is that it's a great game, but it's just funny that it spends so much time telling you how great of a place New York is, but if you have to erect a giant facility just to store all of your supervillains, then maybe it's not the greatest place in the world? But enough about Wall Street)
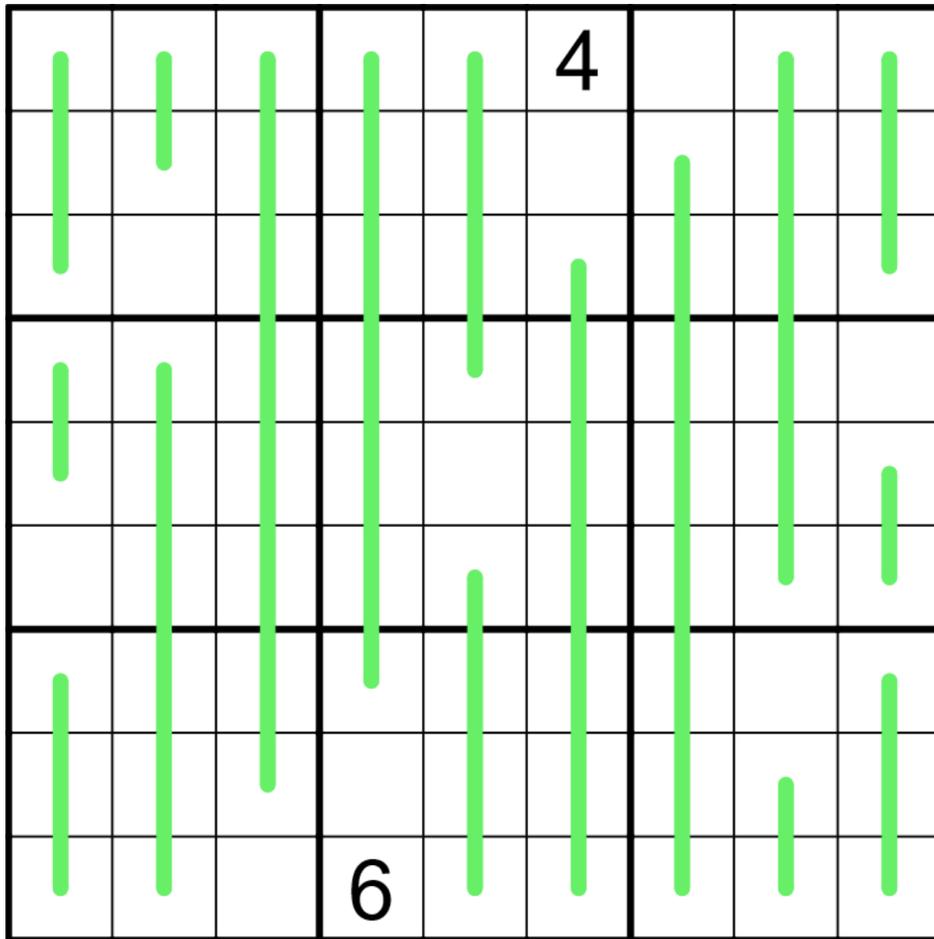
Where was I? Oh yes…

Many years later they meet again and chat about how things have been going. First guy is ecstatic: "I've invested the money and multiplied it many times over, so me and my family will be among the richest of the rich pretty much forever. My wife is the love of my life, and I've never gotten so much as a cold in all these years." Second guy smiles and says "Well, I built charities worldwide with a fraction of my wealth, I'm still the richest guy alive and also revered for my good deeds. I haven't aged a day since we last met, and yes, your wife is pretty incredible."
Third guy walks in, flailing his arms around and nodding his head, and says: "Guys, I think I screwed up."

Normal Sudoku Rules Apply. Digits in cells directly connected by a line must differ by at least 5.

GAS 101 (Because Philip would never and I've had to solve enough Philip GW puzzles in my life): [see Hints page]

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

f-puzzles: https://f-puzzles.com/?id=yme5payk
CTC: https://tinyurl.com/yh8d7dze

Bonus 1: Nonconsecutive Spiral Sudoku
Bill Murphy

Normal sudoku rules apply. Digits along the grey line must not be consecutive.

f-puzzles: https://f-puzzles.com/?id=yqujn46l
CTC: https://tinyurl.com/4hn84ak3
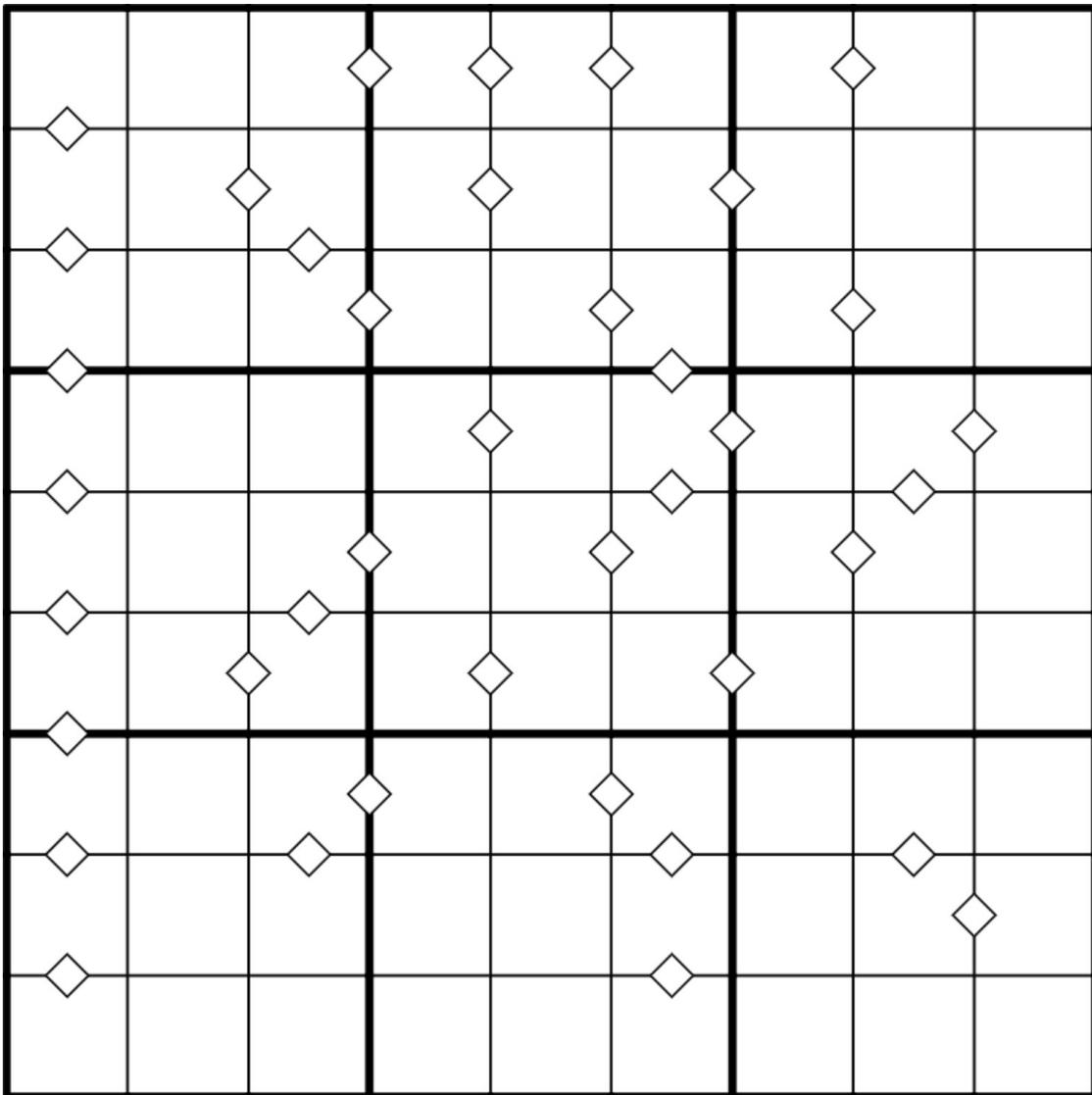
Bonus 2: XY-Differences
Philip Newman

Normal sudoku rules apply.

If there's a diamond between two horizontally adjacent cells, then their difference is the same as the leftmost digit in that row. (For instance, if the leftmost digit in a row is 3, then all pairs separated by a diamond in that row have a difference of 3).

If there's a diamond between two vertically adjacent cells, then their difference is the same as the topmost digit in that column.

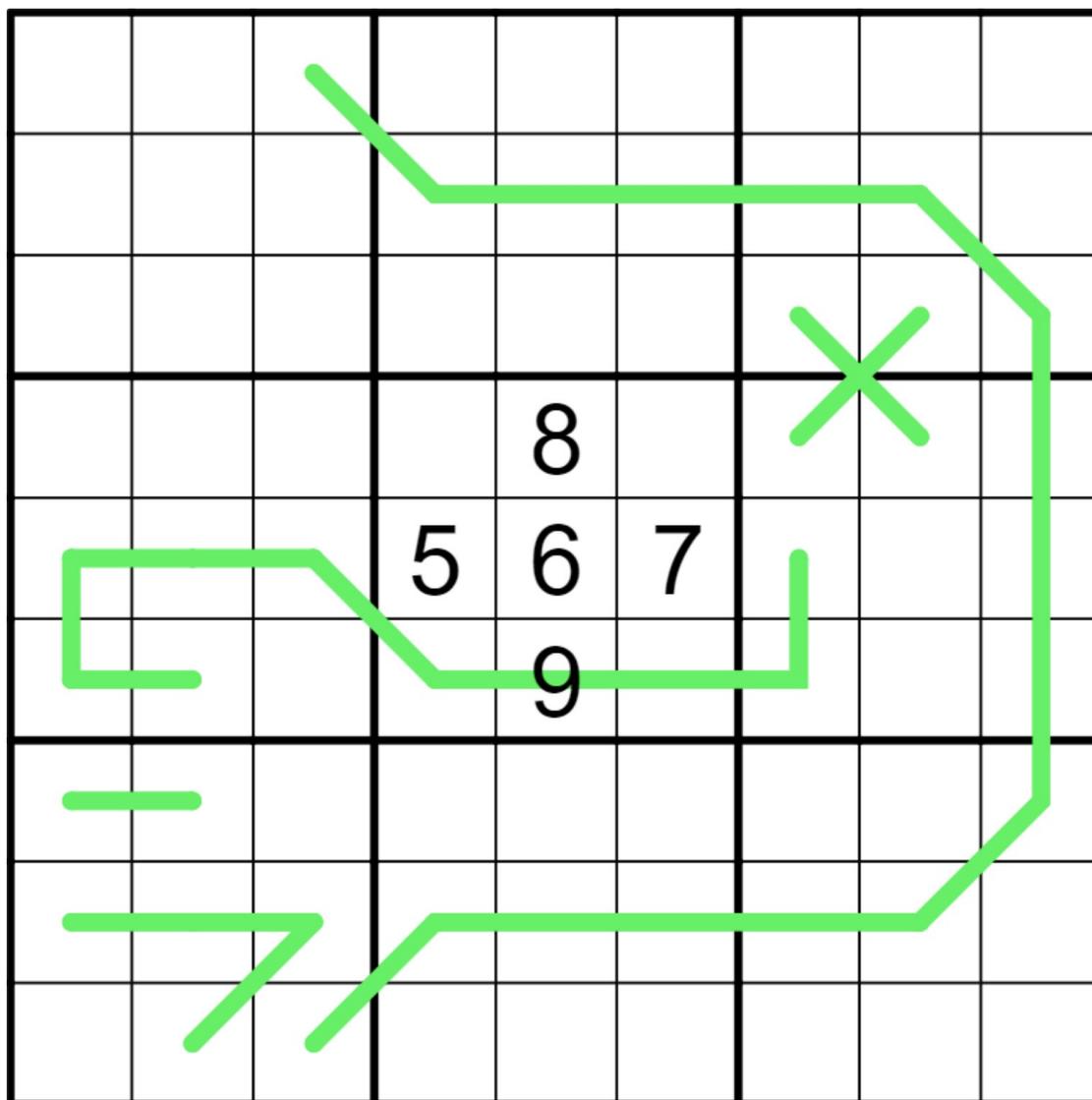Not all possible diamonds are necessarily given.

f-puzzles: https://f-puzzles.com/?id=ynb2kqon
CTC: https://tinyurl.com/3a8bwvd3

Bonus 3: Out With A Shoulder
Philip Newman

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

f-puzzles: https://f-puzzles.com/?id=yklpzjrv
CTC: https://tinyurl.com/3bndppxz

Bonus 4: Tight Fight Sudoku
clover!

Normal sudoku rules apply - with a twist:
Place the digits 0-9 in each row, column, and 3x3 box. Cells with a / contain two digits, the topmost of which is the lower digit (e.g. if r1c1 contained 1 and 9, it would read 1/9). NB: this rule is necessary for answer check to trigger! You can select "Number" to place proper corner digits.
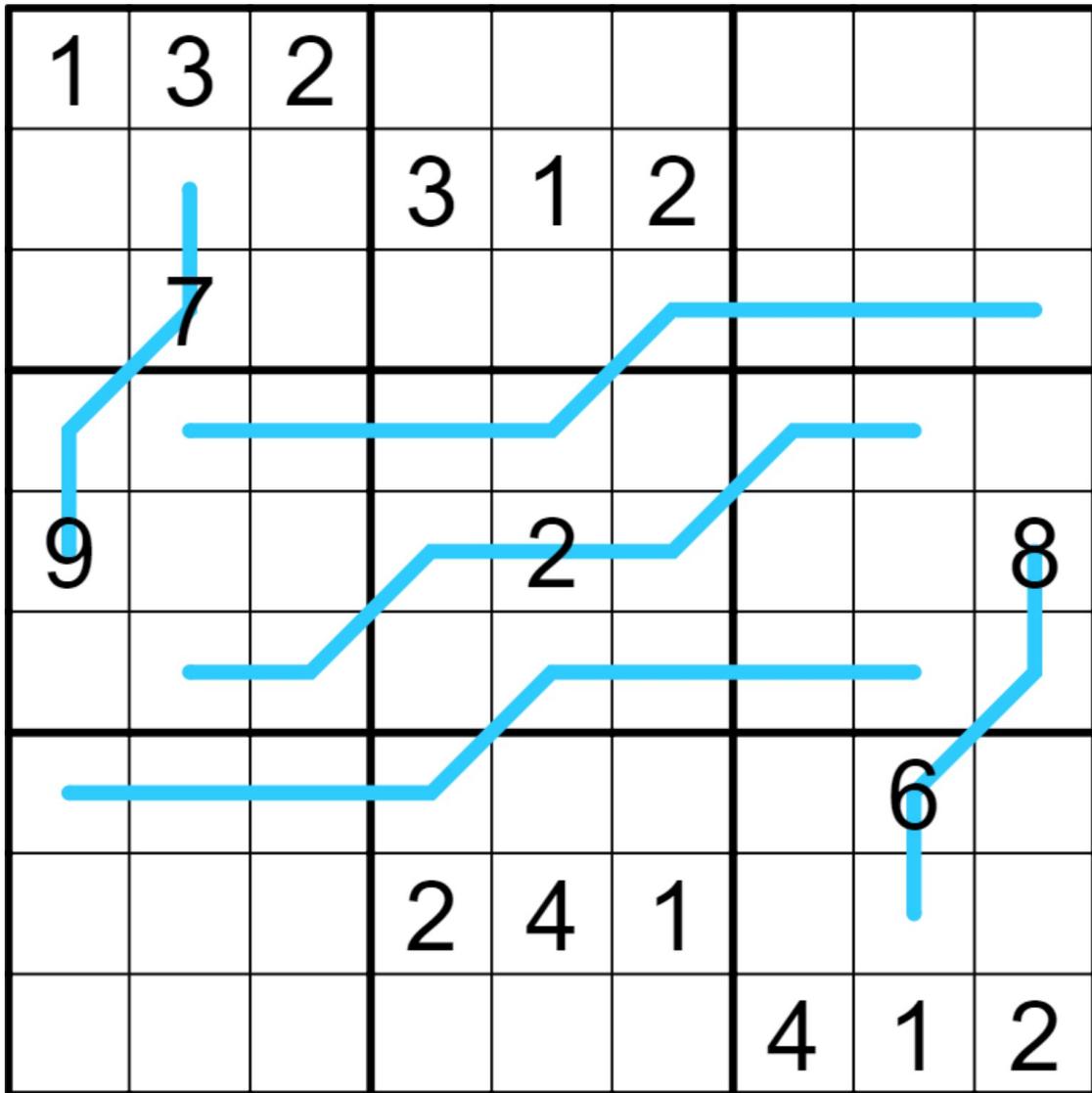

Penpa+: https://tinyurl.com/nhz5dntv
(No CTC link for this one, sorry!)

Bonus 5: Region Sum Lines Sudoku
clover!

Normal sudoku rules apply.
Region Sum Lines: each blue line travels through multiple 3x3 regions. Along each line, the sum of the digits within each region is equal (e.g. r2c2 + r3c2 = r4c1 + r5c1).
Different lines may or may not have different sums.

f-puzzles: https://f-puzzles.com/?id=ywlu94dk
CTC: https://tinyurl.com/3p9hapmh

Time Benchmarks

	Two party hats	One party hat	Todays dinosaur:
Oct 1, 2023	7:30	15:00	Racing Rayososaurus
Oct 2, 2023	7:00	13:00	bittersweet Barilium
Oct 3, 2023	6:45	11:30	paper Parasaurolophus
Oct 4, 2023	9:00	20:00	Noshing Neosodon 🦕 🥪
Oct 5, 2023	9:00	17:00	tall Tylocephale
Oct 6, 2023	7:30	13:00	oblique Oryctodromeus
Oct 7, 2023	8:00	16:00	Rushing Ruehleia
Oct 8, 2023	7:30	14:00	partisan Pamparaptor
Oct 9, 2023	9:00	18:00	Futuristic Futalognkosaurus
Oct 10, 2023	6:30	12:00	robo-Rhoetosaurus
Oct 11, 2023	8:30	17:00	Artificial Agrosaurus
Oct 12, 2023	7:00	13:00	Venerable Veterupristisaurus
Oct 13, 2023	7:30	15:00	Labral Liubangosaurus
Oct 14, 2023	6:30	12:00	zoned-out Zby (not a typo, Mark)
Oct 15, 2023	11:00	20:00	Pretty Pamparaptor
Oct 16, 2023	5:00	10:00	Knackered Kunmingosaurus
Oct 17, 2023	8:00	15:00	ambiguous Amargasaurus
Oct 18, 2023	7:00	13:00	golden Goyocephale
Oct 19, 2023	8:00	15:00	Narcotic Nopcsaspondylus
Oct 20, 2023	5:30	10:00	neighborly Nemegtomaia
Oct 21, 2023	8:30	before 03:14:07 UTC on 19 January 2038 (or 14 years)	Resolute Regaliceratops
Oct 22, 2023	8:00	16:00	Anticholinergic Antarctosaurus
Oct 23, 2023	6:30	12:00	prescriptivist Pterodactyl
Oct 24, 2023	7:00	13:00	HEHEHE Huehuecanauhtlus
Oct 25, 2023	7:30	15:00	Late Late Late Lancanjiangosaurus
Oct 26, 2023	7:00	13:00	runny Rinchenia
Oct 27, 2023	8:00	15:00	Integrated Isanosaurus
Oct 28, 2023	8:00	16:00	#GoAndTakeIt Garumbatitan
Oct 29, 2023	7:30	14:00	distant Dysalotosaurus
Oct 30, 2023	7:00	13:00	Long Lynthronax
Oct 31, 2023	08:30	17:00	Lucid Limusaurus

Patreon Promotion
Philip Newman

🚨 Shameless self-promotion alert! 🚨

If you've been missing the 1 to 9 series, I have released a (free) pack of them on my patreon! You can check them out here:
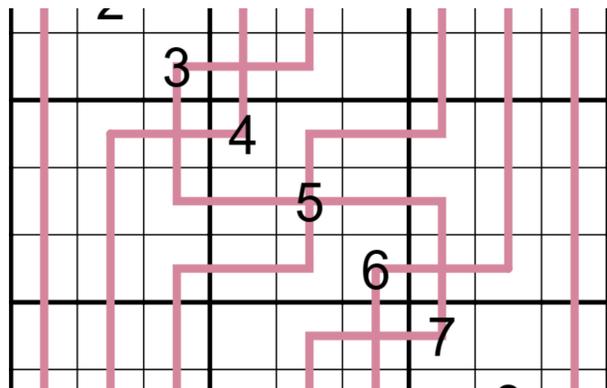https://www.patreon.com/posts/patreon-preview-90979065

(Solve videos will be available at
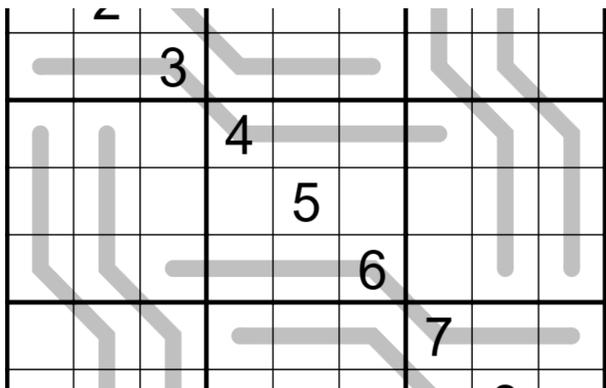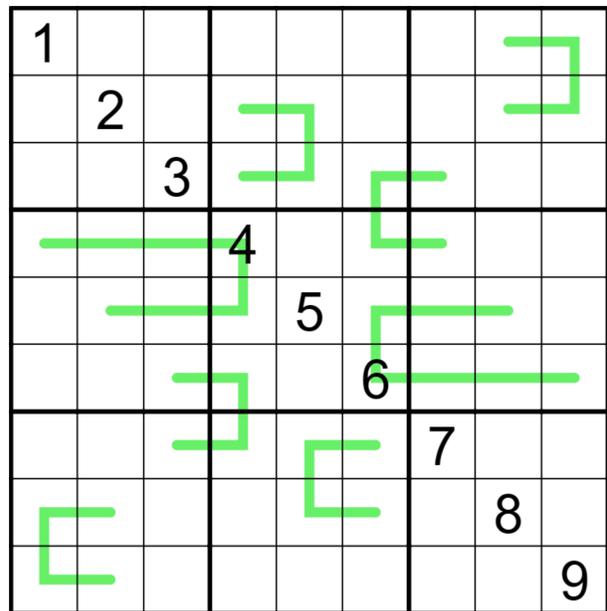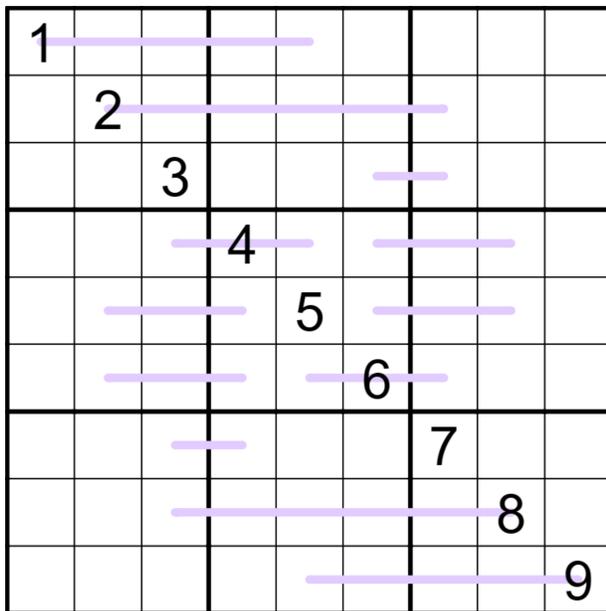https://www.youtube.com/channel/UCVfBuEUzTkhTq8rTGDuz9tA in about a week.)
[Editors note: „anytime soon" now. It's done when it's done. In the meantime Philip recommends that you can watch Lucian's solving Philip's 129 Puzzle Pack - YouTube])

Here are clover and Bill's patreon pages as well, check them out!

https://www.patreon.com/sudokuclover

https://www.patreon.com/WWMSudoku

Hints

Hints for October 6, 2023

GAS 101: Roping is a term that is used when you have a repeated pattern of digits that run across columns or rows in adjacent boxes. It's a common property of non-consecutive grids, which can allow advanced speedsolvers to cheat (a little)
It can look like:
ABC DEF GHI
DEF GHI ABC
GHI ABC DEF
Today's GAS takes advantage of this pattern in two directions to give you a stack of digits. N.B. The digits may not necessarily be in the same order.

Hints for October 7, 2023:

Hint 1: Mark's solving of the football sudoku of September 6 was in the video [Magnanimous GAS - YouTube](#) (Oct. 7, 2023)

Hint 2: (by the editor) if you don't know what you saw in Philip's video: this was an oldish game of the US-variant of football, where one team nearly managed the impossible: to win in the last few seconds after being quite a bit behind (by playing recklessly) – but the other team managed to „re-win" in the last play of the game. There was quite a bit of discussion on the discord channel (times in CEST timezone, UTC + 2 hours):

[patreon!] Philip Newman ☑ — 07.10.2023 16:54
A bit more on the video that I didn't feel like putting in the intro:
The schools playing are both from cities I have lived in. I was a long-term substitute teacher at one of them. The winner of the game went on to win the state championship (I say "the" state championship, they won the 5A div II state championship, there were like 10 or 11 state champions every year, more than that now)

engy — 07.10.2023 18:48
what was it we who only know regular football (the one with the round ball, and where the clock isn't stopped everytime someone breathes) should have seen?

DreamLibrarian — 07.10.2023 20:03 (in reply to engy)
This was a high school game, in the 1990's, in Texas, and the announcers were apparently [clearly?] on the side of the underdogs (black jerseys). I don't understand American football very well, so what I found so entertaining was the commentary phrased in family friendly[?] Bible belt lingo in a characteristically down home Texan style. Bingo bango bongo ~ Dad gummit ~ Good gosh amighty ~ I done wet my britches ~ God bless those kids, I'm sick, I wanna throw up 😂

Daniel K — 07.10.2023 22:22 (in reply to engy)
there's a great mini-documentary about that game on YouTube that explains it better

https://www.youtube.com/watch?v=FkNP9jggB2I („The Greatest Comeback That Never Was")

The best "explain it in round-ball terms" equivalent I can come up with, if you don't want to watch all that is...a team in the quarterfinals is down 6-2 late in the second half, through some miracle scores a few goals and ties it up 6-6 with less than a minute left...and then concedes a heartbreaking goal off the kick-off to lose at the last minute

[patreon!] Philip Newman ☑ — 07.10.2023 23:49 (in reply to Daniel K 22:22)
To add to it (and this isn't in the clip I posted, but is in the bleacher report clip) the game was quite close until JT scored two defensive touchdowns. The equivalent would be something like the score was 4-2 with a few minutes left and the trailing team conceded two own goals

There were 48 points scored in the last ~5 minutes, and JT's offense wasn't on the field for any of it :laughs:

Hints for October 31

GAS 101 (Because Philip would never and I've had to solve enough Philip GW puzzles in my life): 5 can never appear on a German Whispers line. Then, 4 and 6 are restricted because they can only go next to a 9 and a 1. Those are the digits I would focus on today 😊