

GAS Leak

Genuinely Approachable Sudoku
from the CtC Discord

Volume 32:

September 1 – September 30, 2023

Welcome to September!

We got a full month of GAS puzzles for you, one better than the other. We finished the August puzzles, played football, had a Guess Who-Triplet, days with two puzzles for the time prize of one and solved a bunch of „1 to 9 September“ puzzles. There are also some puzzles with a negative constraint (all well marked).

Also a SudokuCon was proposed/announced. Read more about it on Clover's puzzle days from September 11 onwards.

Have fun solving!

Engy

September 1, 2023: New Month Who Dis

Philip Newman

It's a new month! But we can't move on from our August theme just yet. The first 26 days of August repeated the variants used in the first 26 days of GAS (as @Walker revealed yesterday, and as many of you figured out well before), but before we finalized the swap with GAPP we had already set puzzles for the last 5 days of the month...

It should be @clover!'s turn to post, but she is sick (🤒). So, congrats if you correctly guessed that we would post the remainder of our "first month" puzzles in a completely arbitrary order! Grab yourself *nothing*, we're all out of 🤖. Except for that one.

Today's **GAS** is a **Killer Between Lines Sudoku**!

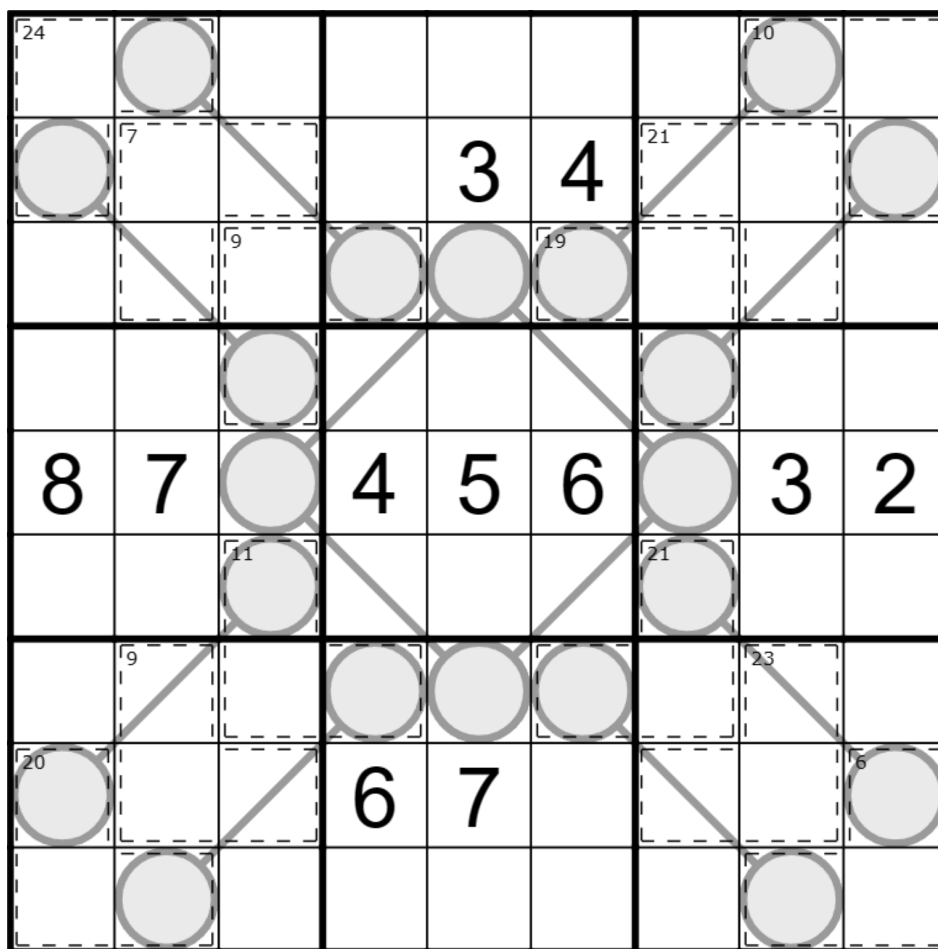
My puzzles for August took more inspiration from the originals than just the variants used, and this one is no exception; it retains most of the cage structure of Sam's (<https://discord.com/channels/709370620642852885/875124233846554694/875130553748312155>) but changes up the between line interactions!

Normal sudoku rules apply.

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

Between Lines: Digits along a line must have values strictly between the values in the circles on the ends of that line.

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



Play on f-puzzles: <https://f-puzzles.com/?id=2c8bdsms> (edit: f-puzzles is temporarily down, this link may not work depending on when you're trying it!)

Play on CTC App: <https://tinyurl.com/nhh85bnj> (recommended, the cage totals are harder to read on f-puzzles)

September 2, 2023: Antiknight
clover!

The sunniest city on Earth is Yuma, Arizona, with 4,015 hours of sunshine every year, up to 13 hours of sunshine per day in the summer months. You could say they're... *anti-night*. 😊

In today's antiknight GAS, normal sudoku rules apply. Also, digits a knight's move apart (as in chess) are never identical.

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

f-puzzles: <https://f-puzzles.com/?id=2363n66b>
CtC: <https://tinyurl.com/4vyuv5sd>

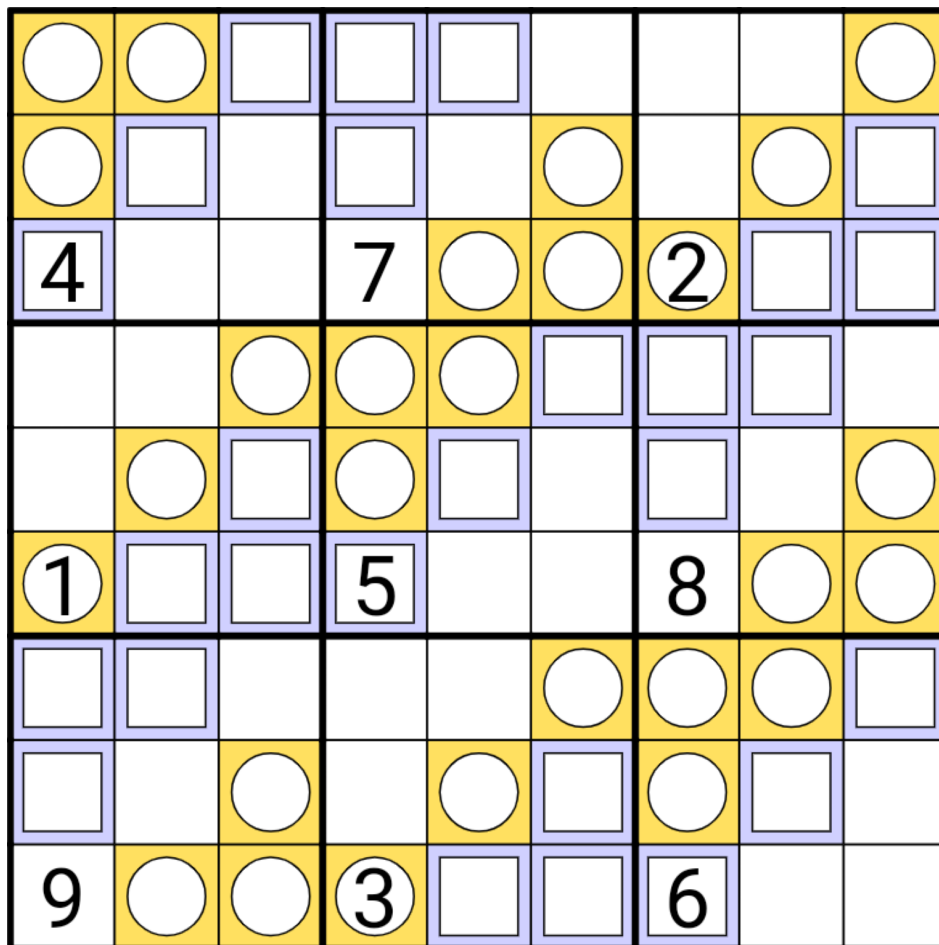
September 3, 2023: I Remember A Time

Bill Murphy

Happy Father's Day to Australian Fathers! I didn't know that all fathers were born on the same day and that their birthdays change as they go from country to country, but here we are! Happy Birthdad!

Today's GAS is a **Trio Sudoku**! I'm truly throwing down the gauntlet today, it's the shortest time for a 9x9 we've ever had. I made a Trio for [Redacted] August but it was too hard and I thought I would go the other way. Have fun, mad respect for those doing this on their phones. (Consider this a pre-apology for the next puzzle I'm bringing through for GAS.)

Normal sudoku rules apply. The digits 1, 2, and 3 are marked with orange circles; the digits 4, 5, and 6 are marked with blue squares.



F-puzzles: <https://f-puzzles.com/?id=23hs2s9j>

CTC: <https://tinyurl.com/3kusezn2>

September 4, 2023: GAS WHO

by clover!, Philip Newman, Bill Murphy

Is it me?
Is it you?
Who knows!

GAS WHO

That's right, it's the return of the channel's favo(u)rite game show, GAS Who, where the puzzles are mixed up and the times don't matter. (Unless you care about hats.)

GAS Who Trivia: Did you know that the first bonus hat for GAS Who was claimed in the 1990s? <https://www.youtube.com/watch?v=g8iOvPOAerQ>

Normal 6x6 sudoku rules apply. (Place a digit in each cell such that each row, column, and outlined region contains each digit from 1-6 exactly once.)

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

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

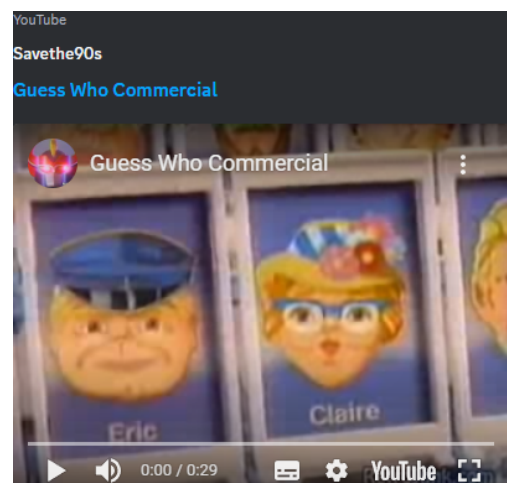
Killer: Digits in cages cannot repeat and must sum to the total given.

[Add all times together for the Time Benchmarks at the end of this Leak]

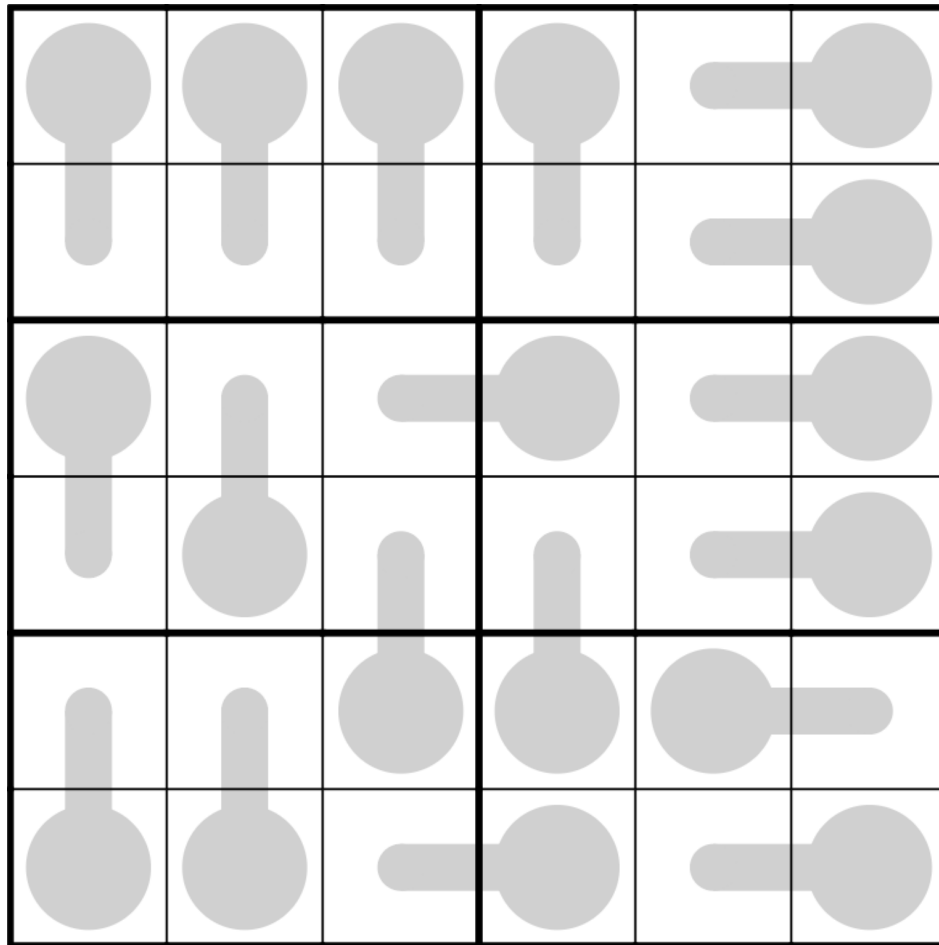
Additionally correctly identify who set each of the three puzzles (clover, Bill, or Philip) for a misprinted **GAS Who August 2023 bonus hat** 🎩! Did clover or Philip repeat their variant from the 2021 GAS Who? Did anyone try to emulate the style of someone else? Am I asking a bunch of questions to try to make you second guess yourself after you've already figured it all out? Who knows, GAS Who!

[The solution is in the Hints part at the end of this Leak]

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



Thermo

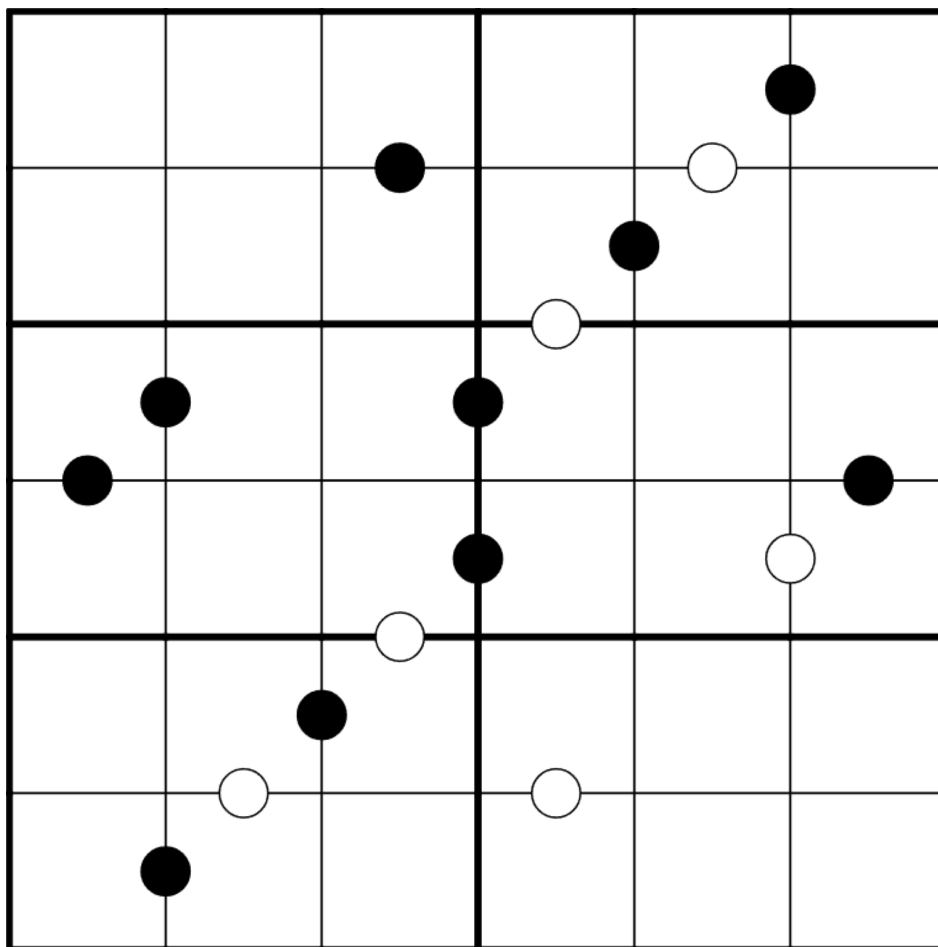


Play on f-puzzles: <https://f-puzzles.com/?id=259d2odo>

Play on CTC App: <http://tinyurl.com/yc2zvp99>

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

Kropki Pairs



Play on f-puzzles: <https://f-puzzles.com/?id=296moxef>

Play on CTC App: <http://tinyurl.com/2t89bz6f>

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

Killer

		3		4	
9					
	11		10	5	

Play on f-puzzles: <https://f-puzzles.com/?id=2chg45fi>

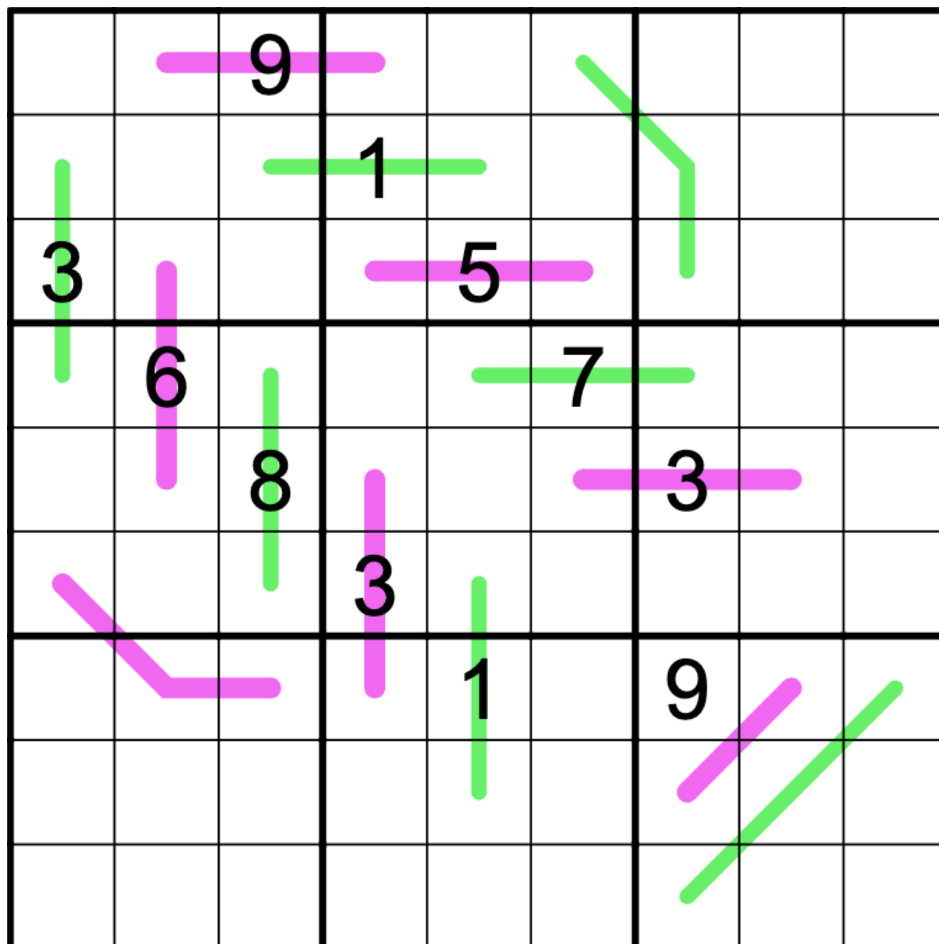
Play on CTC App: <http://tinyurl.com/e8y2vnw4>

September 5, 2023: Renban Whispers
clover!

I said something completely boneheaded to my partner the other day and they were kind enough to test this puzzle for me anyways. I'd like to thank them by giving them two hats, thus the generous times. Enjoy. 😊

By the way, it's also the last of my 'August' puzzles! We'll return to your regularly scheduled proGASmming imminently.

German whispers/renban: Normal sudoku rules apply. Each bold pink line (renban) contains a set of consecutive digits in any order, such as 354. Along each thinner green line (German whispers), adjacent digits must differ by 5 or more.



f-puzzles: <https://f-puzzles.com/?id=26w6uzuww>
CtC: <http://tinyurl.com/5ck84h8d>

September 6, 2023: Football Sudoku

Bill Murphy

Good luck explaining this one Mark. (Carn the tillies! 4th place is still better than the Socceroos)

Today's GAS is my latest entry into GASSing things that probably shouldn't be GASSed, **Football Sudoku**! Today you get the ruleset, how I internalised it while setting it, an example puzzle (which isn't GAS, but seeing the answer will probably help you figure out how this works) and then the actual GAS. Let's get into it.

Normal Sudoku Rules Apply. Digits in grey cells form two sequences of digits from 1-7 moving any number of cells either across a row, column or diagonal. One sequence must have an 8 between each "player" and the other sequence must have a 9. It is up to the solver to determine which is which.

Picture it as though it's a snake puzzle, with two different snakes, each running in a straight direction from the next number of 1-7, with a ball of either 8 or 9 along that path.

Take however long you need to try and internalise the ruleset. Attached is an example image of the puzzle from the 2018 WSC Instruction Booklet with the answer, and the parts highlighted to try and help 😊 (Yeah I'm attaching it, please note: It's not GAS and each 'ball' must be adjacent to the either player on the 'path', something I forgot to note in the rules, sorry! N.B. this knowledge is not necessary for the GAS)

EXAMPLE NOT GAS: <https://tinyurl.com/5n8xews9>

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

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

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

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

CTC: <https://tinyurl.com/57fzxvet>

September 7, 2023: Whisper Sweet 129s

Philip Newman

We've finally finished [REDACTED] August! Now it's time for 1 to 9 September!

I've done quite a few puzzles over the years with this pattern of given digits; there's even a whole (mostly not-GAS) pack from two years ago

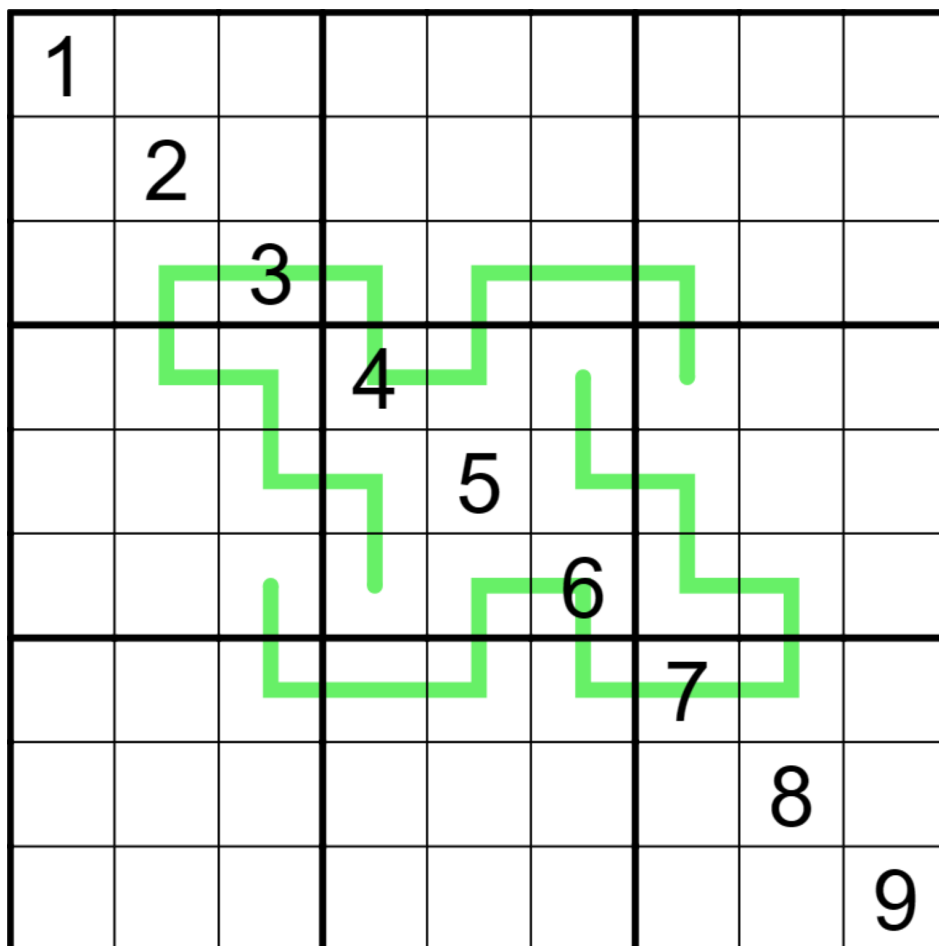
(<https://discord.com/channels/709370620642852885/709373384437268530/892868509107896380>)!

This month I have so far set 10 of these of which 3 are GAS. So... there may be another non-GAS pack or two coming out of this.

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

Normal sudoku rules apply.

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=29ublqts>

Play on CTC App: <https://tinyurl.com/2fm5jw4p>

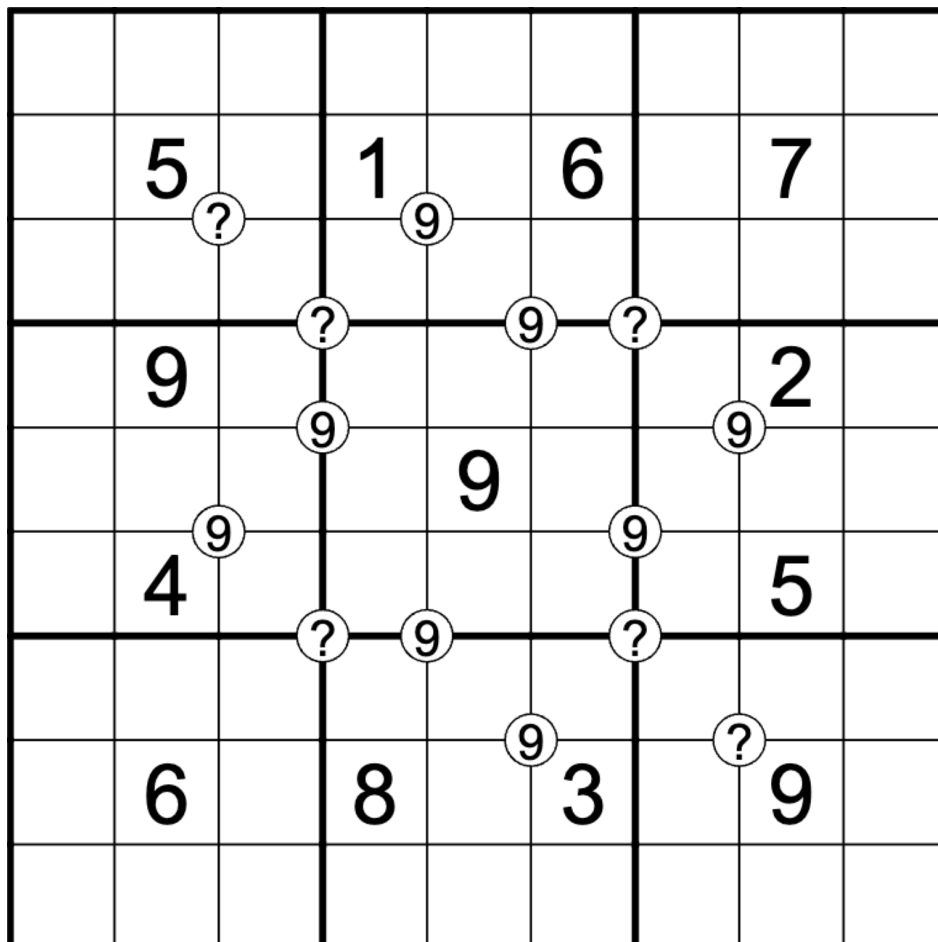
September 8, 2023: Mathradd
clover!

Math not radical enough? Do you wish your mathrax sudoku had frosted tips, JNCOs, a Dragonball Z buttndown, and was doing a sweet kickflip? Welcome to MATHRADD: it's like mathrax, but you only have to add. Also, it's rad. ❄️

Normal sudoku rules apply.

If a value appears in a white circle at the corner of four cells, then the two pairs of diagonally opposite digits around that clue each sum to that value. For example, in this puzzle, $r2c4 + r3c5 = 9$, and $r2c5 + r3c4 = 9$.

If a white circle contains a question mark, then the two pairs of diagonally opposite digits have the same sum, but that sum must be determined by the solver.



f-puzzles: <https://f-puzzles.com/?id=282wq8ht>
CtC: <https://tinyurl.com/yhfuzu45>

September 9, 2023: two classic sudokus

Bill Murphy

been a bit under the weather. so today, you're not just getting a **classic sudoku**, you're getting **two classic sudokus**! that's right, i'm trying twice as hard to do half as much, i'm sure the math checks out.

Normal sudoku rules apply.

[Add the times together for the Time Benchmarks list]

classic #1:

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

f-puzzles: <https://f-puzzles.com/?id=23keo6nw>

CTC: <https://tinyurl.com/5n7xz2yd>

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

classic #2:

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

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

CTC: <https://tinyurl.com/ye25dd3s>

September 10, 2023: Fahrenheit 129

Philip Newman

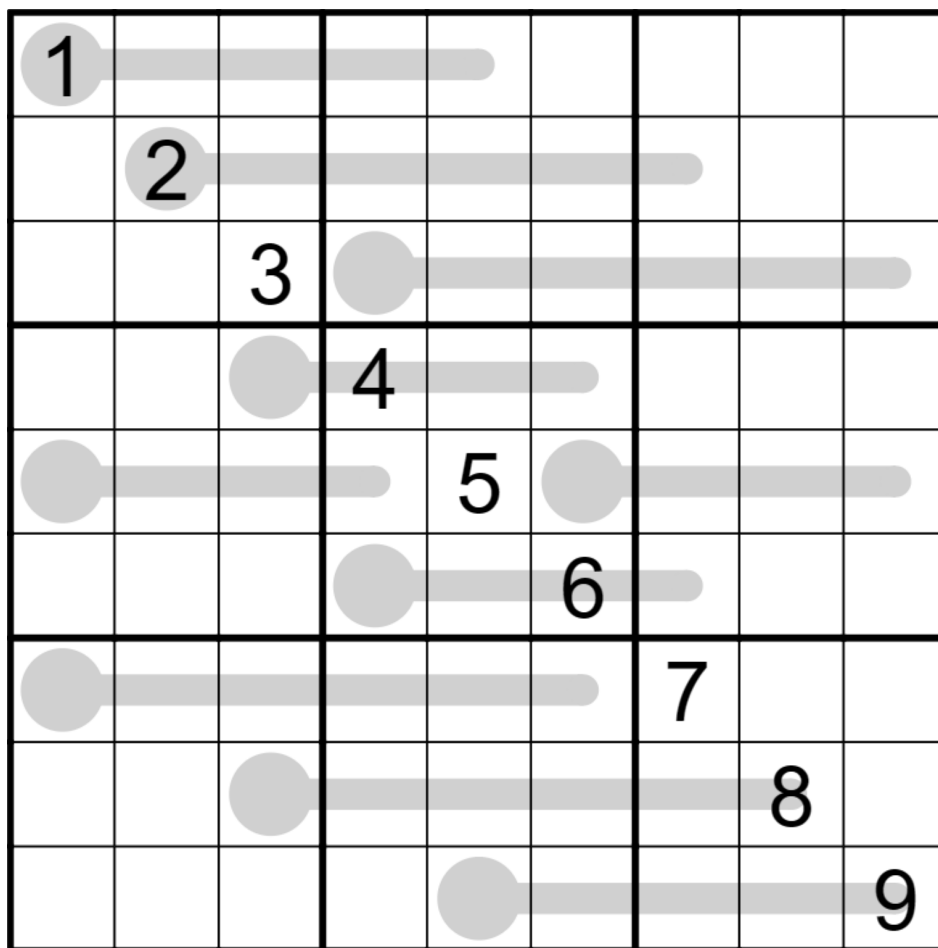
Zoe (almost 5 now!) came into our bedroom at 7:00 this morning and asked me to get her a cereal bar for breakfast. I said I would get up in a few minutes.

By 7:03, Zoe had gotten the whole box of cereal bars and was gently reminding me with a cardboard tap tap tap on my bedside table how the morning is supposed to go.

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=yuradvjp>

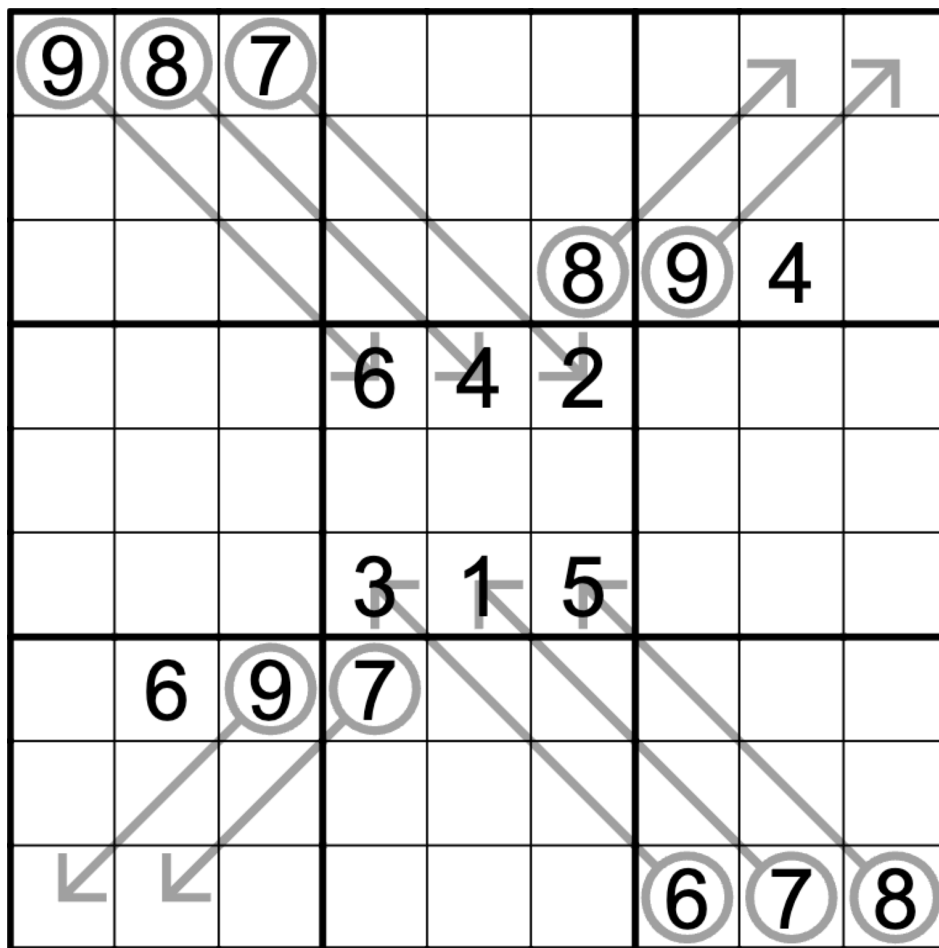
Play on CTC App: <https://tinyurl.com/yxcd9b9x>

September 11, 2023: Arrow
clover!

Let me plant a seed along with today's **arrow sudoku**: how do you feel when I say *SudokuCon*? Would you hang out with us in person? I promise we don't smell. By 'we' I mean Philip and myself. Not so sure about Bill. 🤔

Anyways, for more info, you'll have to wait until my next GAS in three days time 😊

Normal sudoku rules apply. Digits along arrows sum to the digit in the attached circle. Digits on arrows may repeat as long as they follow sudoku rules.



f-puzzles: <https://f-puzzles.com/?id=ykd593fq>
CtC: <https://tinyurl.com/2zxytpns>

September 12, 2023: Battenburg Sudoku

Bill Murphy

I never battenburg I didn't like! 😊

Today's GAS is a **Battenburg** sudoku. Before you @ me, apparently both spellings are fine. Fun fact, today's GAS I originally started making for Patreon and it turned out too nice and GAS to not come here. (Most of my Patreon puzzles are things I started making for GAS and they turned out too tricky, so it's nice that the reverse happens sometimes too.)

Normal Sudoku Rules Apply. Rectangular symbols at the intersection of 4 cells indicate a 2x2 checkerboard pattern of odd and even digits. All rectangles are given.

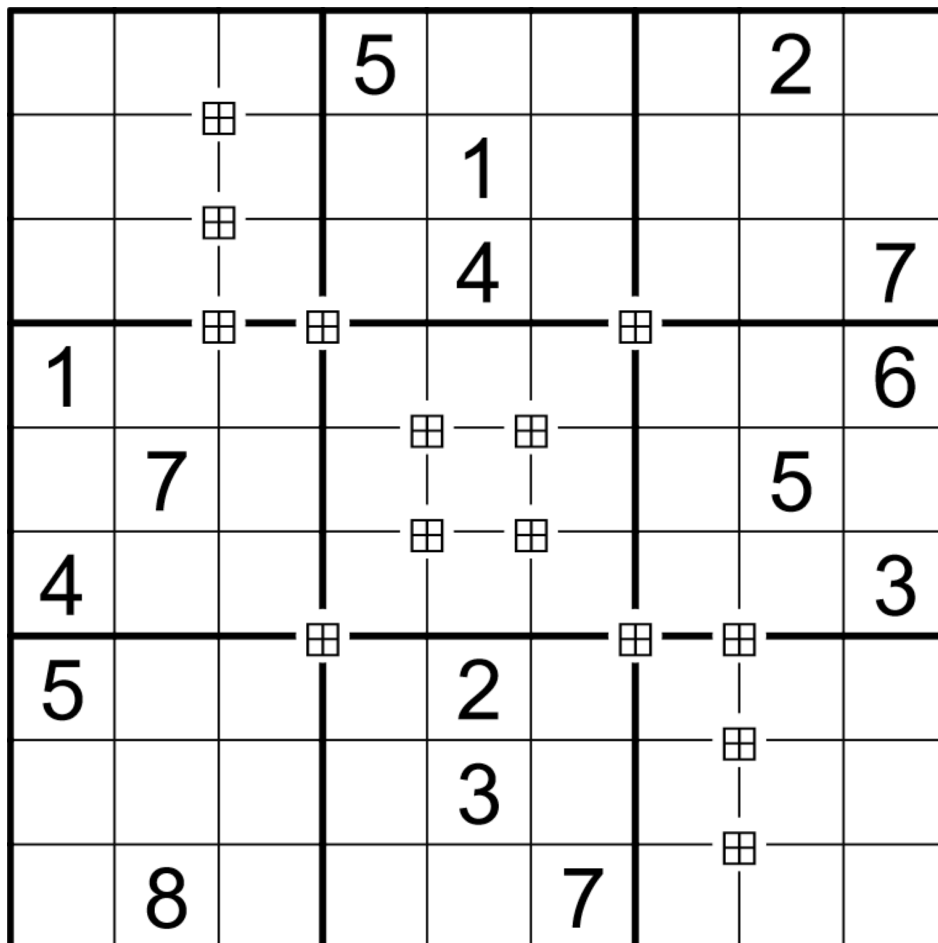
🚨 NEGATIVE CONSTRAINT ALARM 🚨

Rectangle Shapes indicate either a pattern of digits either:

Odd Even Even Odd

Even Odd Odd Even

If there's no rectangle, it can't have that pattern.



f-puzzles: <https://f-puzzles.com/?id=2yu9yhxx>

CTC: <https://tinyurl.com/fjy8sky9>

September 13, 2023: 129 Pairs

Philip Newman

It's *finally* not oppressively hot here! Huzzah! To celebrate, today's **GAS** is... oh, I already posted the Thermo, didn't I. Oops.

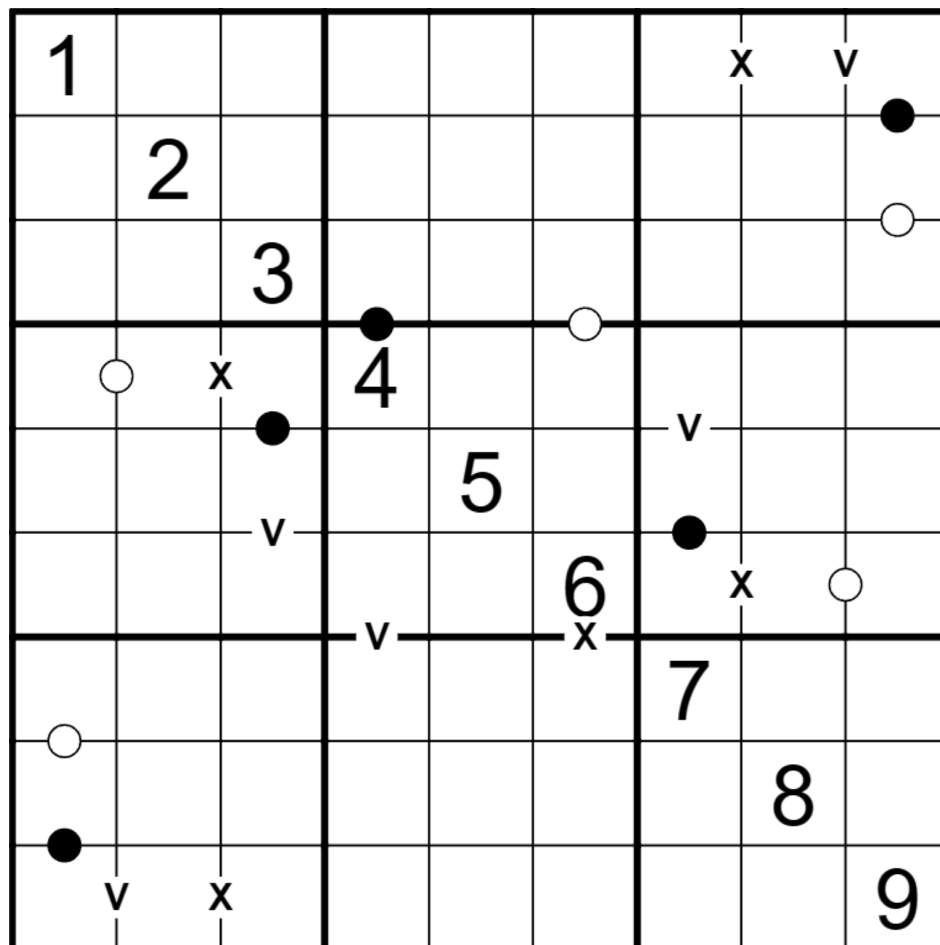
Today's **GAS** is a **Kropki/XV Pairs Sudoku**!

Normal sudoku rules apply.

Kropki Pairs: Digits in cells separated by a white dot must be consecutive (have a difference of 1); digits in cells separated by a black dot must have a ratio of 2:1.

(No negative constraint - other pairs of adjacent digits may have a difference of 1 or ratio of 2:1.)

XV Pairs: Digits in cells separated by a 'V' must sum to 5; digits in cells separated by an 'X' must sum to 10. (No negative constraint - other pairs of adjacent digits may sum to 5 or 10.)



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

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

September 14, 2023: Anticlone Sudoku

clover!

Today's GAS is in fact a sudoku, and not a misshapen game of Tetris.

By the way, am I the only one who sometimes experiences the "tetris effect" - unconsciously thinking in terms of the game - but with sudoku? I even dream about sudoku sometimes these days, but in a bizarre and abstract way, like I'll be setting up a swordfish breakin to avoid the giant spaceship firing laser beams at my house:

https://en.wikipedia.org/wiki/Tetris_effect

Anyways, enjoy this **anticlone sudoku**!

Normal sudoku rules apply. Also, some shapes are marked in the grid. Identical shapes never contain any of the same digits: for instance, if there's a 1 in the green 2x2 square in box 3, then there must not be a 1 anywhere in the green 2x2 square in box 7. (Shapes that are rotated are still considered identical. Colors are only provided for some additional clarity and aren't necessary for the solve.)

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

f-puzzles: <https://f-puzzles.com/?id=ylhg79ba>

CtC: <https://tinyurl.com/yrwyuk3f>

Addendum to September 14, 2023

clover!

I posted this morning's puzzle while half asleep and in a hurry to get out the door, so I absolutely forgot to drop more details about SudokuCon! Here's a little bit more info to tantalize you:

SudokuCon will happen in the northeastern US in late 2024 or early 2025.

So what am I doing talking about it so soon? Well, we're starting off with a small taste of what's to come, with a **24-hour puzzle variety livestream** on the first weekend of November this year.

If you want more details, I'll need you all to do one thing for me: go to <https://twitch.tv/sudokucon> and follow that account. (There's nothing to watch there yet, I just need you to follow it as a favor to me - and if you do, I'll drop some more details in three days time... 🤪)

September 15, 2023: Marquette
Bill Murphy

Welcome back to Negative Constraint week on GAS! Now some of you may be wondering where the rest of the negative constraint puzzles are (and philip and clover may be wondering when we decided that it was Negative Constraint week) and I have a very simple answer for you: **All negative constraint puzzles are given.**

Today's GAS is a **Ratio (-) sudoku!**

Normal sudoku rules apply. Cells in orthogonally adjacent cells cannot be in a 1:2 ratio.

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

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

CTC: <https://tinyurl.com/sust9bcb>

September 16, 2023: 381654729?

Philip Newman

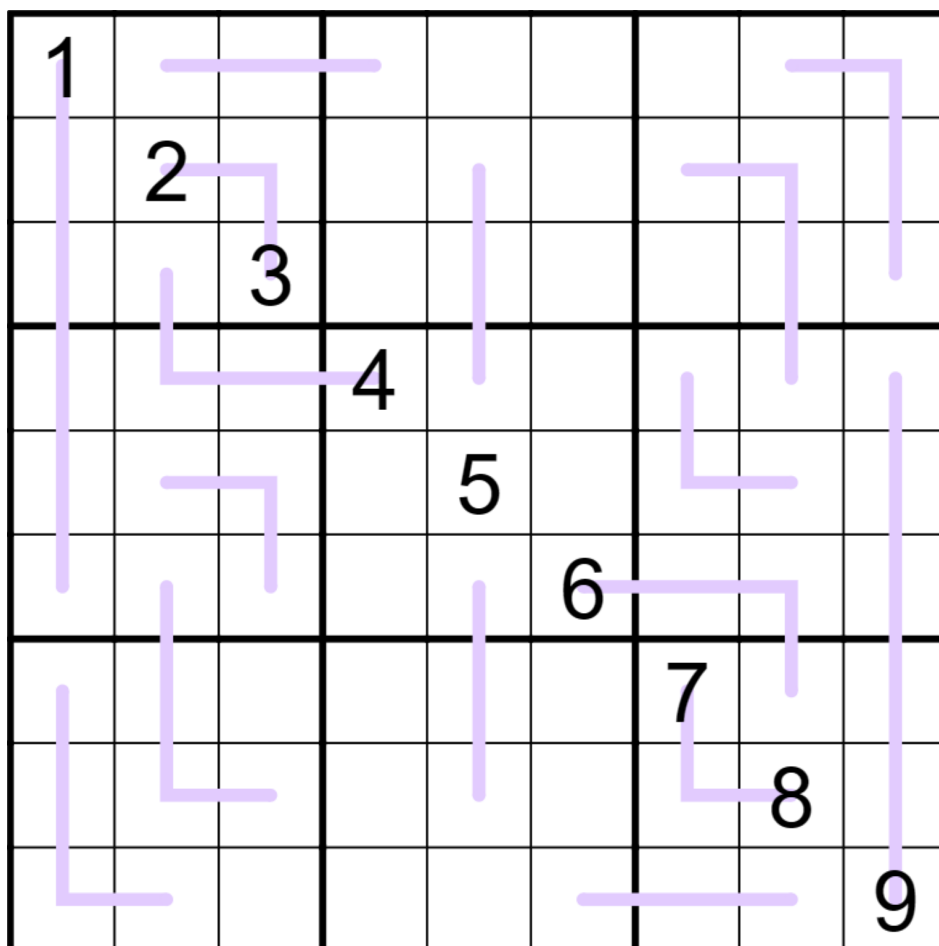
On topic for my theme this month: I wanted to shout out @TopAutism, who yesterday found a classic sudoku which solves uniquely for any choice of central digit from 1 to 9. (We found later that this had been done previously by computer search, though not so elegantly. A 1-7 version by GAS Giant Emeritus @Sam Cappleman-Lynes has appeared on CTC in the past, see Mark's solve here: https://www.youtube.com/watch?v=GzFa9_R1aqE)

Identifying the significance of the title will *not* get you a bonus hat (what do you think this is, August?) but it's a neat bit of trivia. [See Hints page in this Leak]

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

Normal sudoku rules apply.

Renban: Digits along purple renban lines must form a non-repeating consecutive set, in any order - for example, a 4-cell renban line could be 4352, but not 5679 or 2312.



Play on f-puzzles: <https://f-puzzles.com/?id=yvktvqg2>

Play on CTC App: <https://tinyurl.com/4z72zj5v>

September 17, 2023: Consecutive Sudoku clover!

Happy Negative Constraint Week to those of you who celebrate. May the cheerful sounds of 🚨 NEGATIVE CONSTRAINT ALARMS 🚨 resonate joyously throughout the streets.

Today's GAS is a **consecutive sudoku**! You've probably seen so many consecutive pairs puzzles by now that this one seems a little out of the ordinary, but this version of the constraint is actually the original. Normal sudoku rules apply; also, digits separated by a white dot (or bar) are consecutive.

🚨 NEGATIVE CONSTRAINT ALERT: ALL POSSIBLE CLUES ARE GIVEN: IF TWO CELLS ARE NOT MARKED, THEN THEY DO NOT CONTAIN CONSECUTIVE DIGITS.
🚨

By Bill-ular request, there's a cheeky GAS101 for this one: [see the Hints page in this Leak]

And finally - thank you from the bottom of my heart for following the Twitch account I posted the other day! In return, here's a little more *SudokuCon* information:

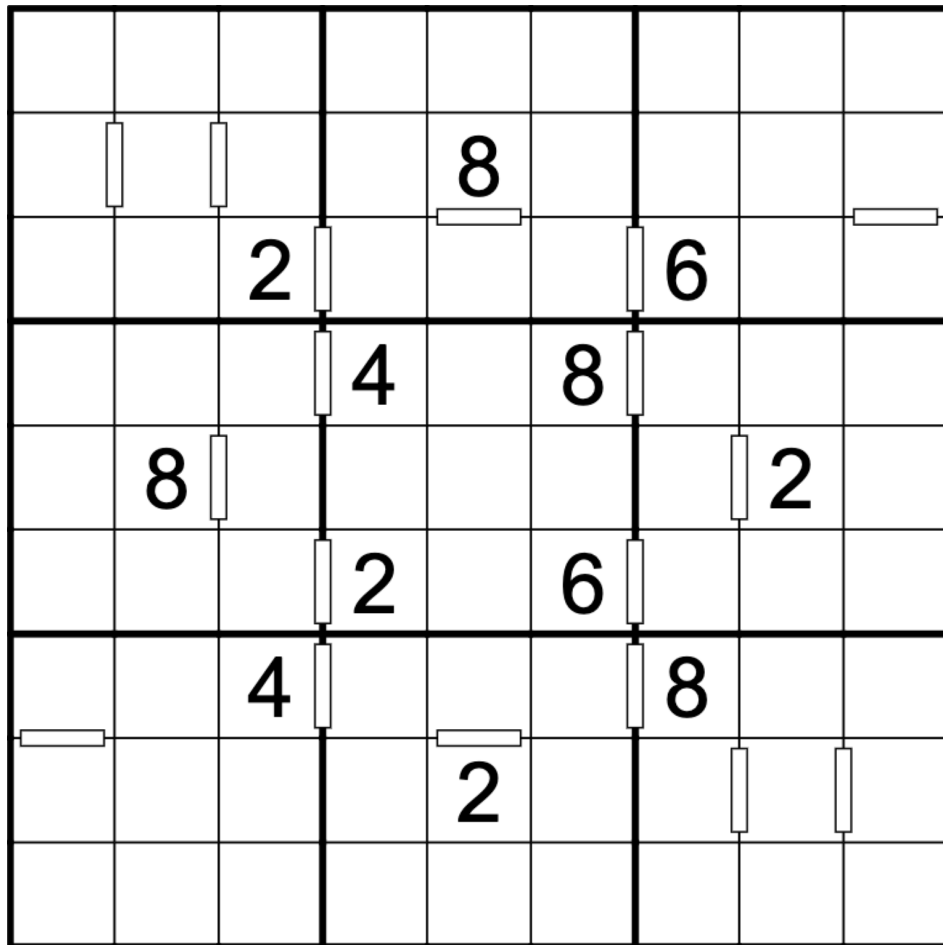
SudokuCon is an in-person con, but we're starting our journey by hosting a 24-hour puzzle variety livestream.

This will happen on the first weekend of November on the aforementioned Twitch channel.

It's going to get really weird.

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

🚨 NEGATIVE CONSTRAINT ALARM 🚨



f-puzzles: <https://f-puzzles.com/?id=ykdjn9of>
CtC: <https://tinyurl.com/437avpbf>

September 18, 2023: Four Pairs Sudoku

Bill Murphy

Average day at the GAS HQ channel:

<BillyPuzzles> HEY NILIPPEWMAN

<BillyPuzzles> INSULT

<NilipPewman> RETORT

<BillyPuzzles> COUNTER-RETORT

<NilipPewman> QUESTIONING OF USE OF YZF

<BillyPuzzles> SUGGESTION TO SHUT UP

<NilipPewman> NOTATION THAT YOU CREATE A VACUUM

<BillyPuzzles> RIPOSTE

<BillyPuzzles> ADDON RIPOSTE

<NilipPewman> COUNTER-RIPOSTE

<BillyPuzzles> COUNTER-COUNTER RIPOSTE

<NilipPewman> NONSENSICAL STATEMENT INVOLVING GSP

<CloverMoon> RESPONSE TO RANDOM STATEMENT AND THREAT TO BAN
OPPOSING SIDES

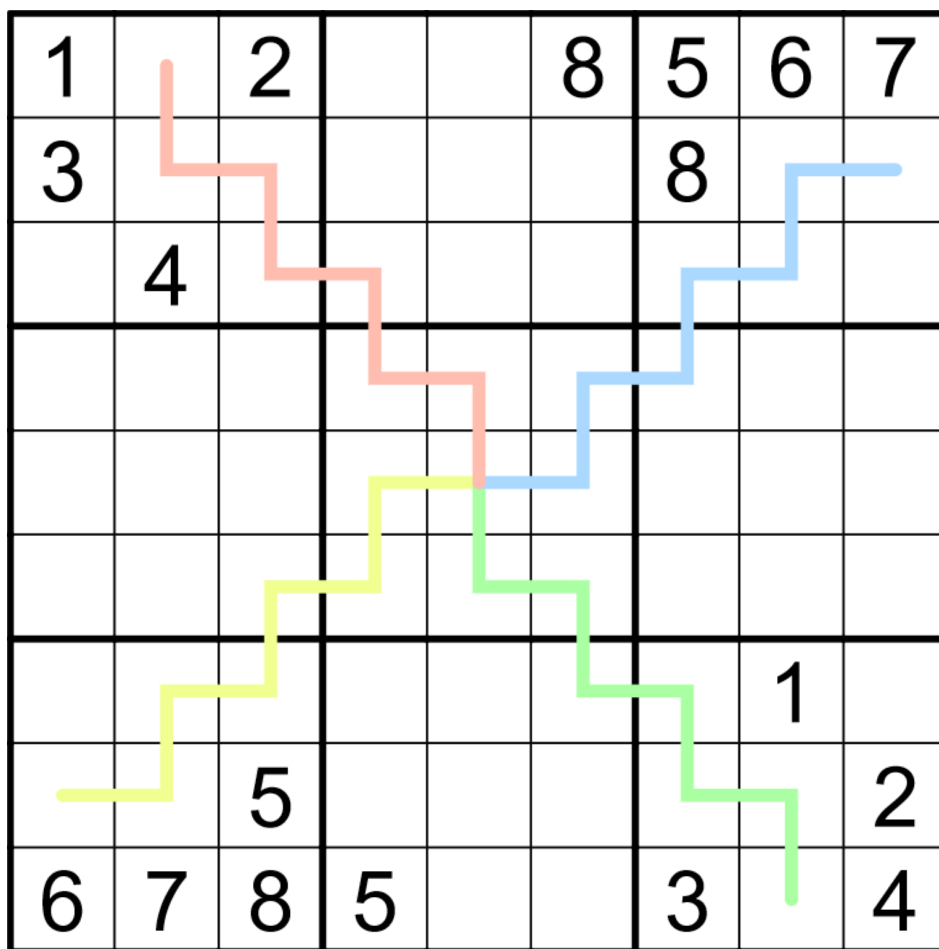
<NilipPewman> WORDS OF PRAISE FOR ROTATIONAL SYMMETRY

<CloverMoon> ACKNOWLEDGEMENT AND ACCEPTENCE OF TERMS

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

*Normal Sudoku Rules Apply. Each coloured line must contain exactly four unique digits
occurring twice. (The central cell is included on each line.)*

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



f-puzzles: <https://f-puzzles.com/?id=yl6bdv8y>

CTC: <https://tinyurl.com/3ct5y5pm>

September 19, 2023: 129asaurus

Philip Newman

Another average day at GAS HQ:

<Philip> clover said it's negative constraint week and I am already doing a theme month, I guess I have to make a negative constraint 1 to 9...

<???> Have to?

<Philip> Who's there?

<???> I'm the ghost of bakpao testing future.

<Philip> So what did you think of my... I'm gonna guess ninth attempt at a negative constraint 1 to 9?

<future bakpao> [see Spoiler on Hints page]

<Philip> Oh. I wouldn't want to post something people might struggle with. That's just not who I am as a setter.

<???> 🐞🐞

<Philip> Another ghost?

<future bakpao> No, that was just everyone reading this, probably. Look, why don't you just post the cute dino thing, it's [see Spoiler on Hints page]

<Philip> You're right, people love getting dinos when I post GAS.

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

Normals udom,

You know what, my keyboard lags occasionally, I'm just gonna leave that in for posterity.

Normal sudoku rules apply.

Killer: Digits in cages cannot repeat and must sum to the total (if) given. (The dino shapes are 9-cell cages, so they can also be considered extra regions.)

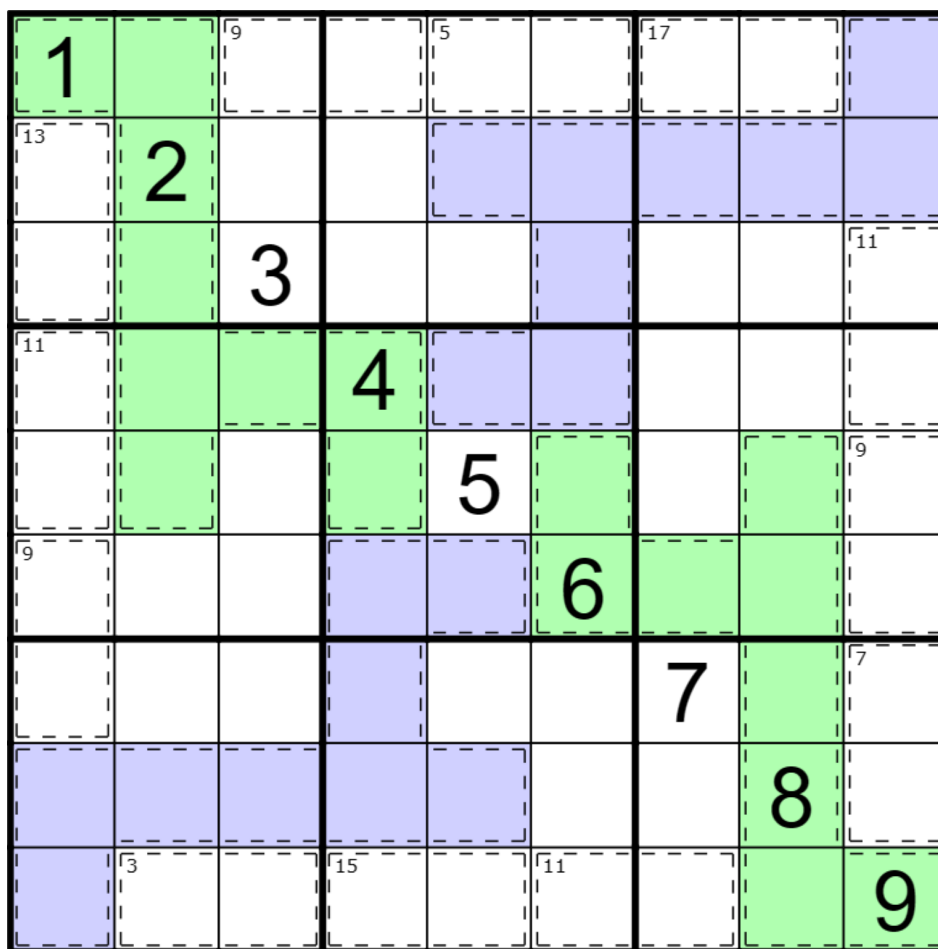
Solve in

<future bakpao> clears throat

<Philip> What now?

<future bakpao> Don't forget the [see Spoiler on Hints page] part.

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



Play on f-puzzles: <https://f-puzzles.com/?id=25eqzq9> |
<https://f-puzzles.com/?id=2y5b25nb> (no highlighting)
 Play on CTC App: <https://tinyurl.com/yrwe5ury> | <https://tinyurl.com/2p84tff5> (no
 highlighting)

September 20, 2023: Outside Sudoku

clover!

So what's actually going to happen on the SudokuCon fundraising stream, you may ask?

Clover, Philip, and Bill will... *checks notes* "fight to the death". Hm, not sure who put that one in there. @[patreon!] Philip Newman ☑ was that you?

@jovi_al, @(comms open!) shy, @Pebble, R. and friends will teach you to solve pencil puzzles! (They might be fighting to the death too, not sure yet.)

@FullDeck and @Missing a few cards will do something terribly clever and make us all feel clever too!

@It's Stark Jr.! and @jonn, accompanied by @carabet, have been given free reign to be their beautiful speed-setting-hosting selves during the late-late-night block.

and way more, but I'm getting tired of typing and have to leave *something* to the imagination.

Today's GAS is an **outside sudoku**! Normal sudoku rules apply. Also, clues outside of the grid are digits that must appear in the first three cells from that direction in that row or column, in any order. For instance, there must be a 1 in the topmost three cells of column 3, and the rightmost three cells of row 2 must be 189 in any order.

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

123								
456								189
								234
234								
567								129
								345
345								
678								123
								456

f-puzzles: <https://f-puzzles.com/?id=22uo2h78>
CtC: <https://tinyurl.com/yc3pssnd>

September 21, 2023: This Must Be The Place / Sea of Love Double Sudoku
Bill Murphy

I've been on sick girlfriend caring duty for the last three days and forgot to make any clever intros for GAS or negative constraint puzzles. In fact, I forgot to make anything at all. Let's see what I've got in my pockets *turns out pockets* damn i really just got too many Classic Sudoku just lying around.

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

[Add the times for both puzzles to get the time listed on the Time Benchmarks page]

First puzzle „This Must be The Place“:

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

f-puzzles: <https://f-puzzles.com/?id=2dj54f5t>
CTC: <https://tinyurl.com/5z4k6h6w>

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

Second puzzle: Sea of Love

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

f-puzzles: <https://f-puzzles.com/?id=27262bmo>

CTC: <https://tinyurl.com/3uav8jnf>

September 22, 2023: BWWWWWWWahaha

Philip Newman

Welcome to the **GAS** IAQ (Infrequently Asked Questions), where we provide Genuinely Approachable answers to your Genuinely Unasked questions.

Q What would a GAS team fight to the death actually look like?

A Picture a herd of stampeding sauropods on Black Friday. It would be exactly the opposite of that.

Q What is bakpao like, really?

A ~~Picture a herd of stampeding sauropods on Black Friday.~~ *All hail bakpao, Lord of the Puzzles, Keeper of the Mines, Slowest of His Name*

Q Is it cheating to do a Kropki/XV Pairs Sudoku and a **Kropki Pairs Sudoku** for the same theme?

A Yes, but would you rather I post the brutal indexer puzzle instead?

Q Is four questions enough for a dumb IAQ intro?

A Probably not. But maybe clover will do an FAQ tomorrow if you ask nicely... and frequently.

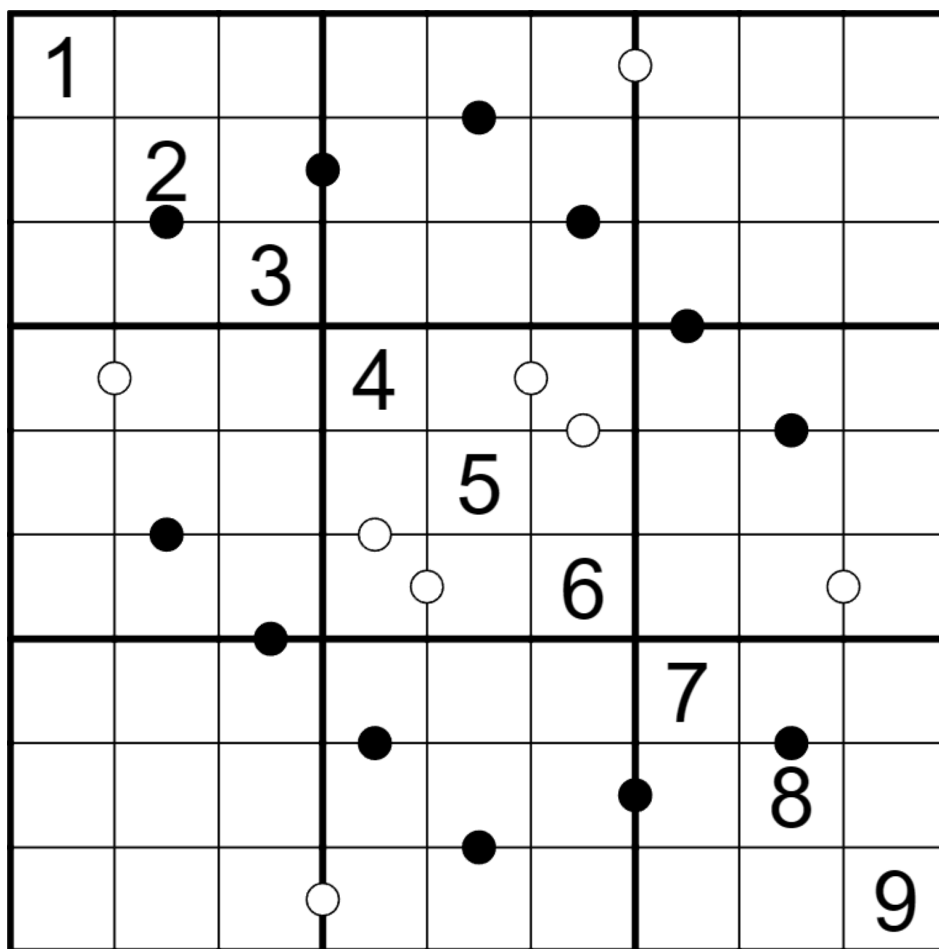
Today's **GAS** is a **Kropki Pairs Sudoku**!

Normal sudoku rules apply.

Kropki Pairs: Digits in cells separated by a white dot must be consecutive (have a difference of 1); digits in cells separated by a black dot must have a ratio of 2:1.

(No negative constraint - other pairs of adjacent digits may have a difference of 1 or ratio of 2:1.)

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



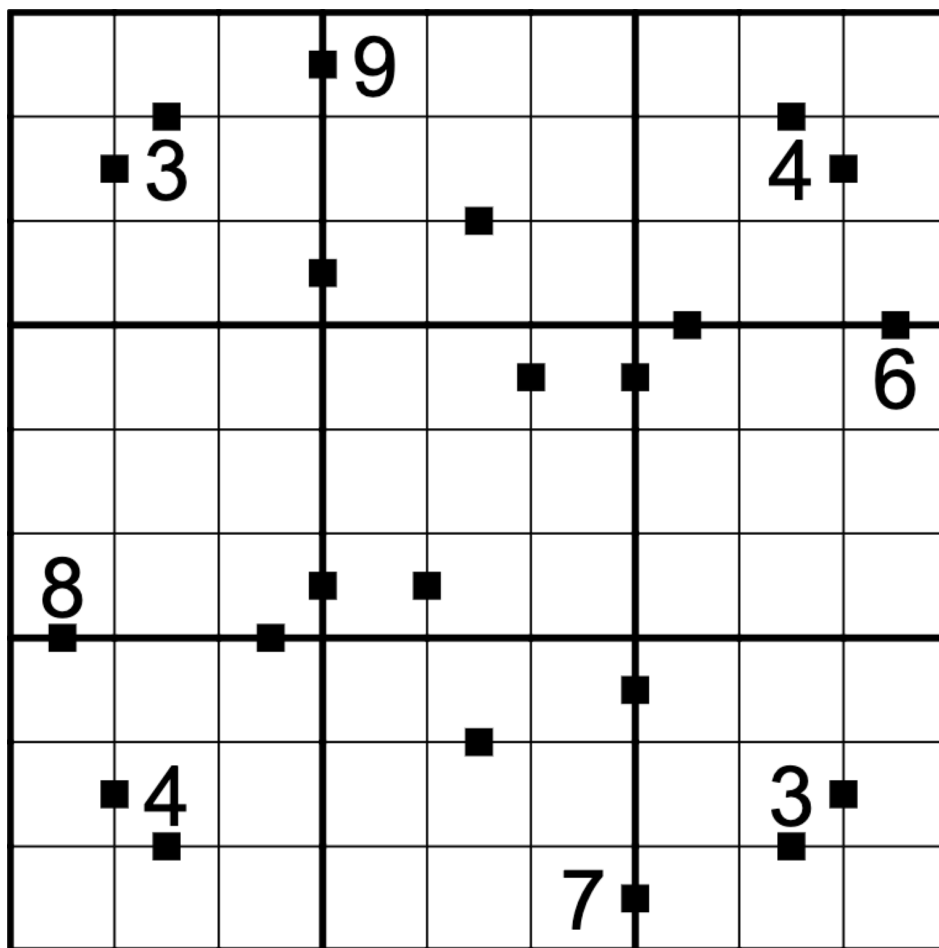
Play on f-puzzles: <https://f-puzzles.com/?id=269awx8p>

Play on CTC App: <https://tinyurl.com/2p8b5eez>

September 23, 2023: Ten to a Dozen Sudoku
clover!

Let's talk content. What's something you'd like to see on the SudokuCon stream? shy-versus-Mark Goodliffe rap battle? A tour through Philip's spiciest GAS outtakes? Let's hear it, and I'll do my best to make it happen.

Today's GAS is a **ten to a dozen sudoku**, a variant that featured in the recent USA sudoku qualifier (except that I've yeeted the negative constraint right on out of it). Normal sudoku rules apply. Pairs of digits separated by a black rectangle either add to 10, add to 12, multiply to 10, or multiply to 12. Not all possible rectangles are necessarily given.



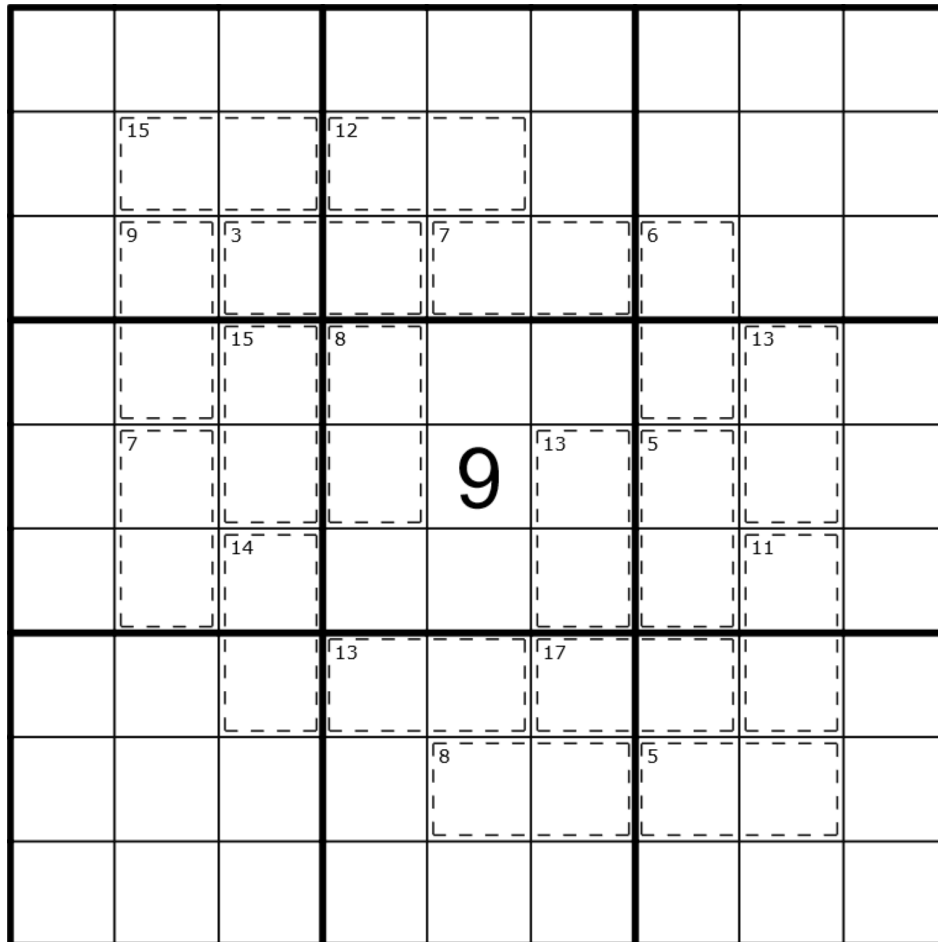
f-puzzles: <https://f-puzzles.com/?id=25c8zl7j>
CtC: <https://tinyurl.com/38n98bpx>

September 24, 2023: It's Alive!

Bill Murphy

One day, my dad pulled up a chair, sat me on his lap and said, "Son, someday we'll buy a second chair."

Today's GAS is a **Killer Sudoku**! *Normal sudoku rules apply. Digits in cages must not repeat and must sum to the small corner total.*



f-puzzles: <https://f-puzzles.com/?id=yqwq5fqp>

CTC: <https://tinyurl.com/mryjh2dk>

September 25, 2023: 129 Pills

Philip Newman

Luke has been learning and making up jokes recently, and this is his favorite at the moment:

What do gorillas like even more than bananas?

[See Spoiler on Hints page]

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

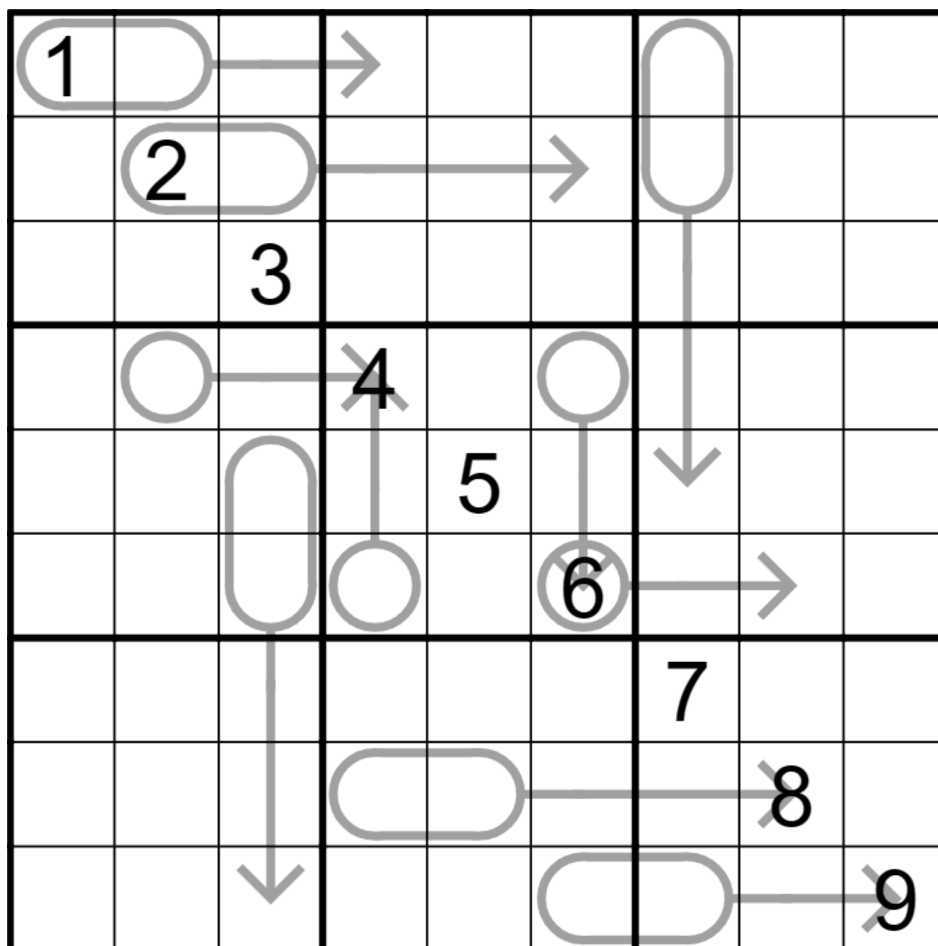
Normal sudoku rules apply.

Arrow: Digits along arrows must sum to the total given in the corresponding circle or pill (read left-to-right or top-to-bottom).

Teensy GAS 101 Hints:

Top [See spoiler on Hints page] / [See spoiler on Hints page]

Bottom [See spoiler on Hints page] / [See spoiler on Hints page]



Play on f-puzzles: <https://f-puzzles.com/?id=2ahrb6f4>

Play on CTC App: <https://tinyurl.com/3k3tcxx9>

September 26, 2023: Hang 10
clover!

Wikipedia claims that

"hang ten" is a nickname for any of several maneuvers used in sports, especially surfing, wherein all ten toes or fingers are used to accomplish the maneuver.

So, every time we solve a sudoku with a keyboard - as long as we aren't missing a finger - it counts as a "hang ten". Radical, bro!

In today's **hang 10 sudoku**, normal sudoku rules apply. There are also 10 cages in the grid. These cages each contain digits with a different sum from 1 to 10, inclusive. Every sum from 1 to 10 is represented by exactly one cage. The solver (that's you) has to determine which sum goes with which cage.

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

f-puzzles: <https://f-puzzles.com/?id=2bk63oz8>
CtC: <https://tinyurl.com/4kb4w6bn>

September 27, 2023: More Like Funtress, Am I Right
Bill Murphy

Got a job interview tomorrow morning for my dream job, nearly forgot to post anything for GAS today!

Too anxious to think about things, y'know?

Speaking of anxiety-inducing, today's GAS is a **Fortress Sudoku**! We can all suffer together!

Normal sudoku rules apply. Grey cells must contain numbers greater than orthogonally adjacent white cells.

								6
		< ^	^ >		8			9
		< ^	^ >		7	< ^	^ >	4
2	3	4	5		6	< ^	^ >	
	< ^	^ >	3		4	5	6	7
4	< ^	^ >	2		< ^	^ >		
9			1		< ^	^ >		
5								

f-puzzles: <https://f-puzzles.com/?id=26m3kh5h>
CTC: <https://tinyurl.com/5n8tr6b2>

September 28, 2023: 129 Classish
Philip Newman

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

But Philip, you might be (probably aren't) asking, aren't you doing a series of puzzles 1 to 9 September which have exactly 9 given digits? Don't you need 17 givens for a unique classic?

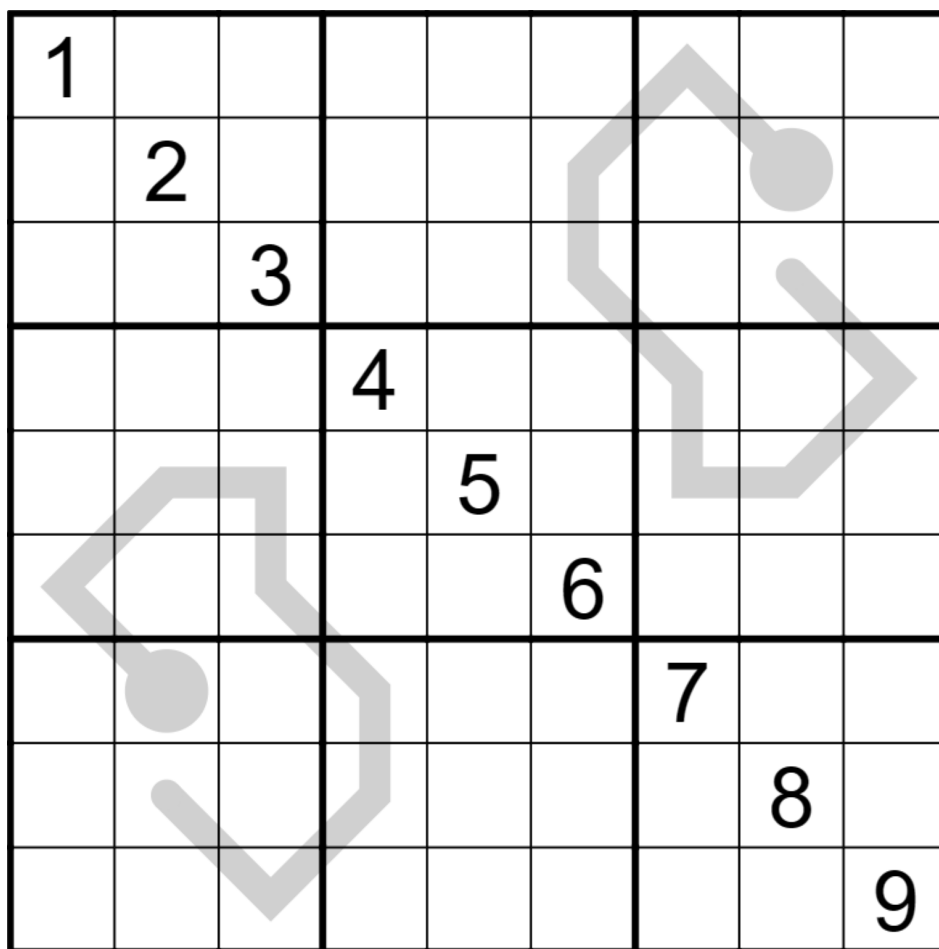
Hm, good points.

Today's **GAS** is a **Build Your Own Classic Sudoku!**

Normal sudoku rules apply. And that's it?
[See Spoiler on Hints page]

[Since the image also was spoiled I moved it to the next page]

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



Play on f-puzzles: <https://f-puzzles.com/?id=22d6cvec>

Play on CTC App: <https://tinyurl.com/nrjnhr8>

September 29, 2023: Pair Up Sudoku
clover!

Today's GAS is a **pair-up sudoku**! Maybe you could solve it with a special someone.



Normal sudoku rules apply. Every time a digit appears in an arrow cell, call that digit X. The digit 10-X must appear exactly X steps away in the direction of the arrow.

For instance, if r5c6 is a 2, then there must be an 8 (10-2) exactly 2 steps to the right of the arrow, in r5c8.

3		←		7				4
	4	←					5	
					↓		↑	↑
		4		↑				
		6			→	4		
						8		
↑	↑		↑					
	1					←	6	
2				3		←		5


CtC: <https://tinyurl.com/ywvmz9we>

September 30, 2023: XV (-) Sudoku

Bill Murphy

Today's GAS is also a pair-up sudoku, that's right, it's the people's favourite XV Sudoku, with my favourite, a negative mindset!

wait

Today's GAS is a **XV (-)** Sudoku. Yes, this puzzle was directly inspired by a joke of how can we make it more obvious that a  **NEGATIVE CONSTRAINT ALARM** applies, so I thought I'll just put the digits into the grid in this particular arrangement.

Normal Sudoku Rules Apply. Orthogonally adjacent digits cannot sum to 5 or 10.

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

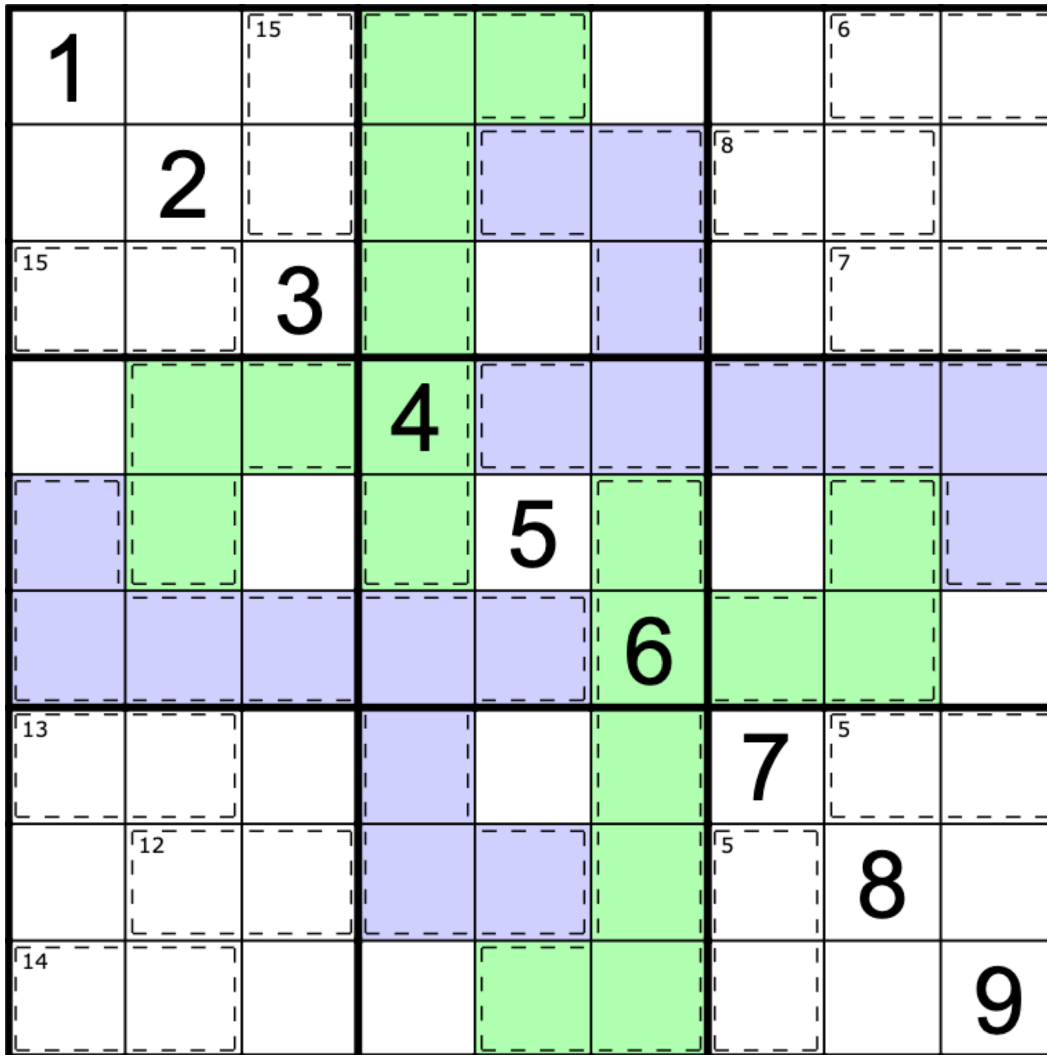
f-puzzles: <https://f-puzzles.com/?id=28rhb2ru>

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

Bonus 1: Killer Sudoku

Philip Newman

Normal sudoku rules apply. Digits in cages do not repeat. If a cage includes a numerical clue in small text in the top right corner, then the digits in that cage must sum to the value of that clue.

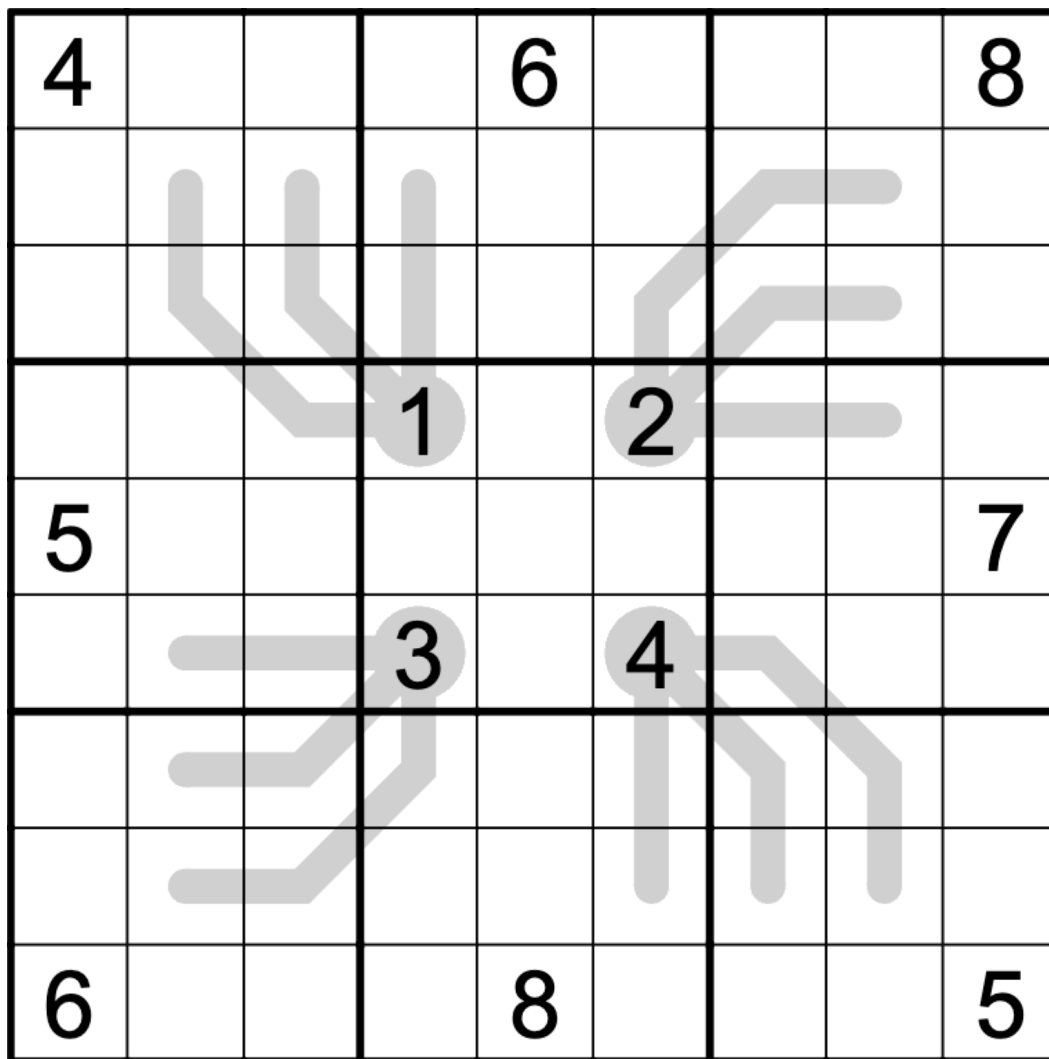


<https://f-puzzles.com/?id=ynbeig26>
<https://tinyurl.com/yc2ee3jt>

Bonus 2: Cabin Fever (for MikoKisai)

Bill Murphy

Normal Sudoku Rules Apply. Digits along thermometers must increase from bulb to tip.



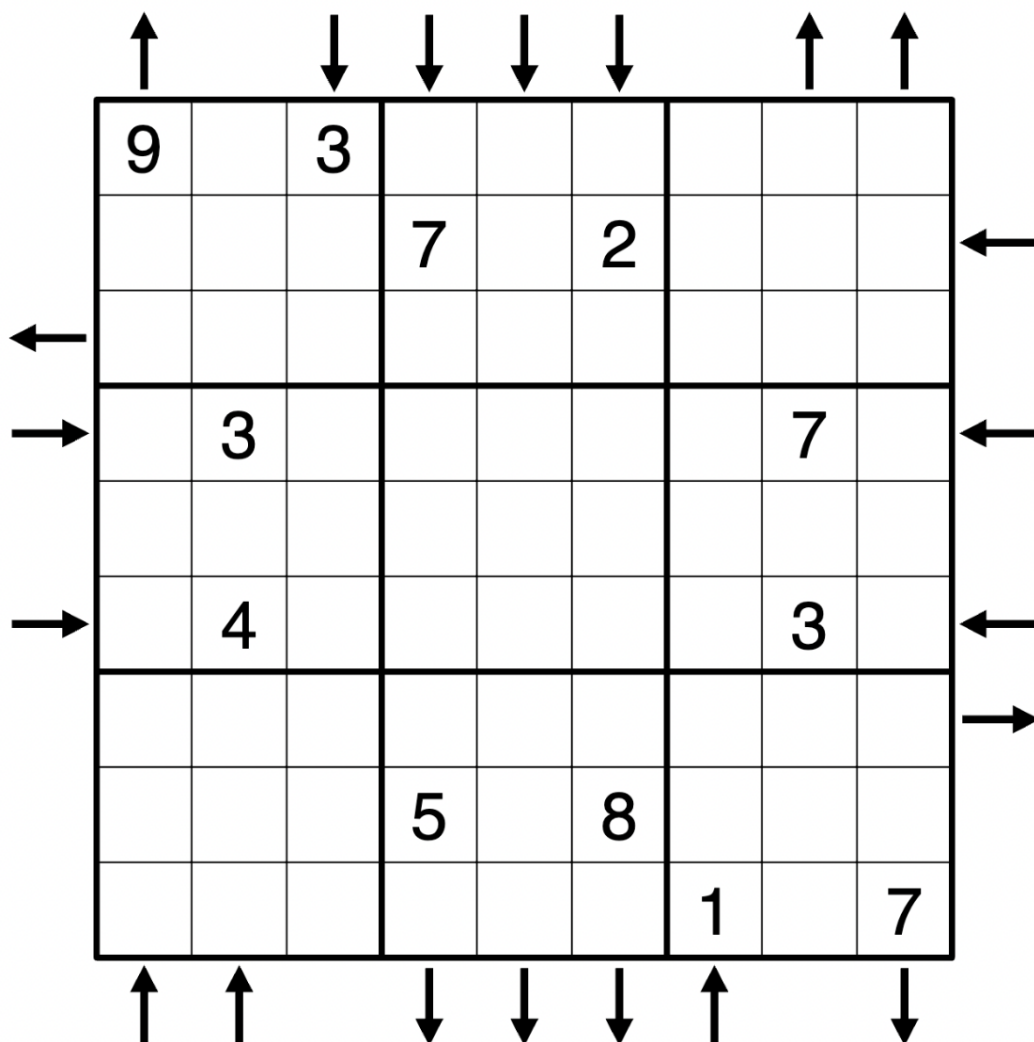
<https://f-puzzles.com/?id=25jthfw>
<https://tinyurl.com/2mf5x62e>

Bonus 3: Rossini Sudoku (With Negative Constraint)

Clover

Normal sudoku rules apply. There are some arrows pointing up, down, left, or right adjacent to certain rows or columns. If an arrow is adjacent to a row or column, then the first three digits in that row or column, nearest the arrow, must increase in the direction that the arrow is pointing. For instance, the left-pointing arrow to the left of row 3 indicates that r3c1 is greater than r3c2, which is greater than r3c3.

NEGATIVE CONSTRAINT: All possible arrows are given. If no arrow is given, then the first three digits in that row or column must not consistently increase in one direction.

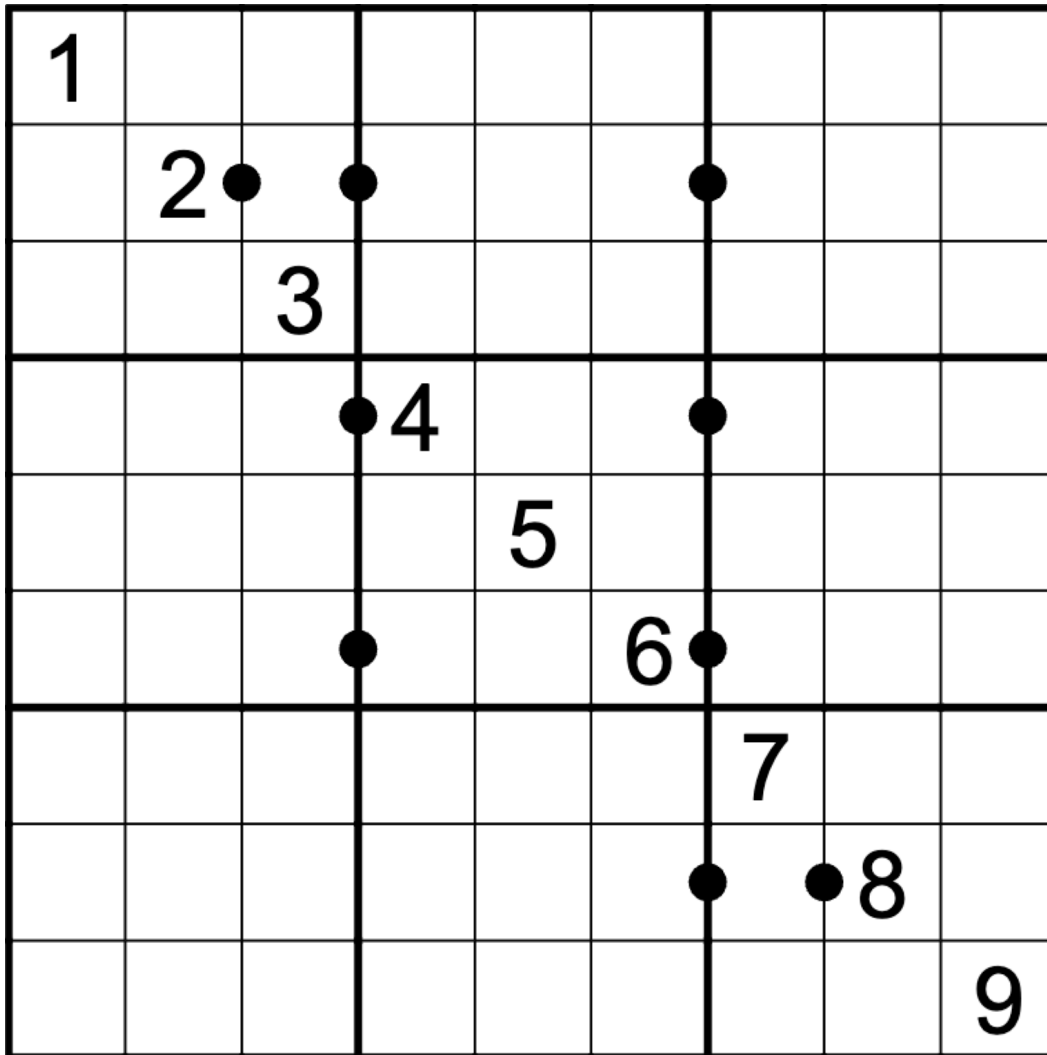


<https://tinyurl.com/5n7e28as>

Bonus 4: Ratio Sudoku (With Negative Constraint)

Philip Newman

Normal sudoku rules apply. Digits separated by a black dot are in a 1:2 ratio. All possible black dots are given (that is, if there is no dot between two digits, they must not be in a 1:2 ratio).

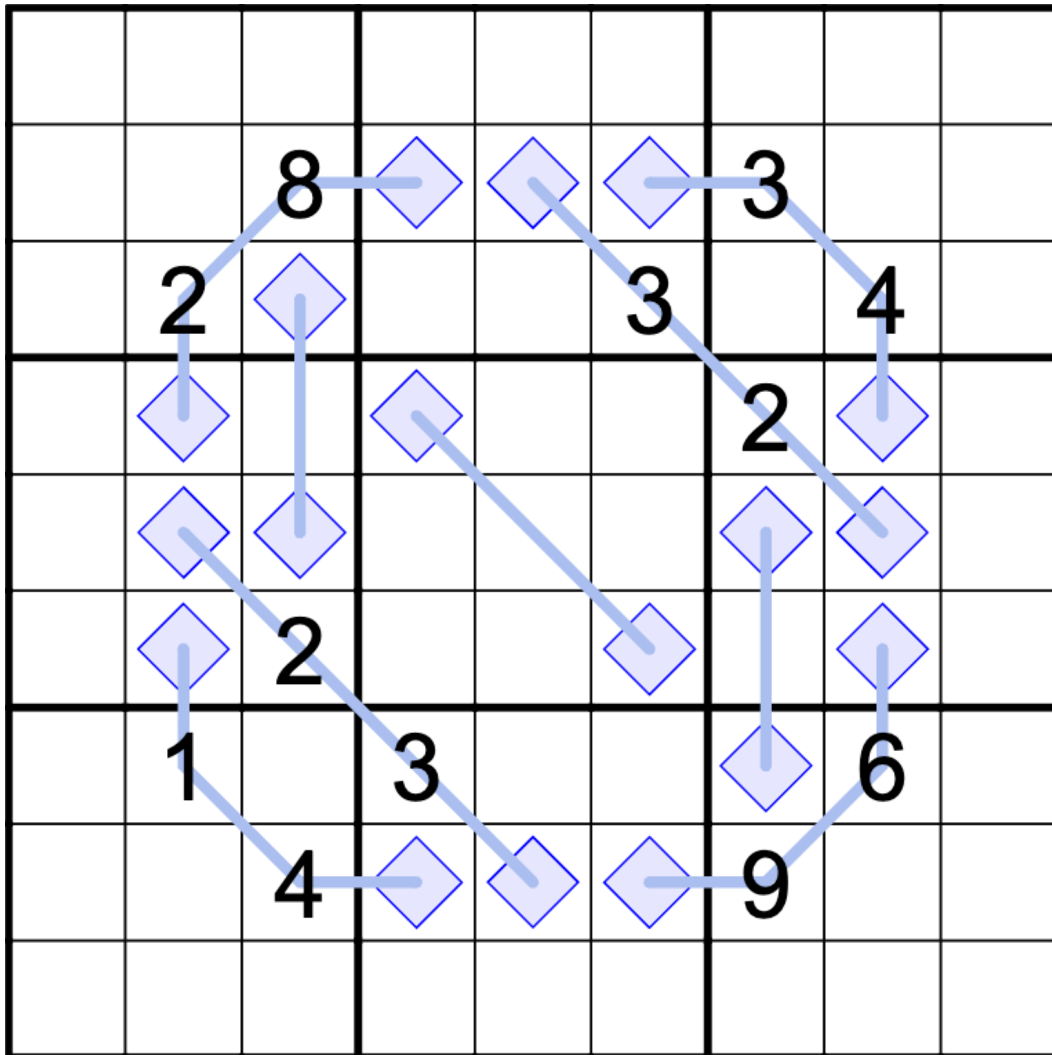


<https://f-puzzles.com/?id=ywvp6yvt>
<https://tinyurl.com/4y25arp8>

Bonus 5: Shutdown

Bill Murphy

Normal sudoku rules apply. Digits along lines connecting diamonds must not be between or equal to the diamond digits. Digits in connected diamonds must have a difference of 4 or greater.



<https://f-puzzles.com/?id=yw5gtzs>
<https://tinyurl.com/mvz23vf2>

Time Benchmarks



Two party hats



One party hat



Today's dinosaur:

Sep 1, 2023	7:30	15:00	Leftover Ledumahadi
Sep 2, 2023	6:30	12:30	sunny Sarahsaurus
Sep 3, 2023	4:30	8:00	Triple Trinisaura
Sep 4, 2023	10:00	20:00	Triplicated Triunfosaurus
Sep 5, 2023	9:00	13:00	Whirlpion's Wendiceratops
Sep 6, 2023	7:30	17:00	Huge Effort Hippodraco
Sep 7, 2023	7:30	15:00	Tasteful Tianshanosaurus (Tasteful in the aesthetic sense, don't try to eat your sauropods!)
Sep 8, 2023	7:15	14:30	da-bomb Bruhathkayosaurus
Sep 9, 2023	11:00	20:00	balDuriavenator's Gate 3
Sep 10, 2023	8:00	16:00	Cerealized Coloradisaurus
Sep 11, 2023	6:00	11:30	intriguing Iguanodon
Sep 12, 2023	7:00	13:00	Caked-Up Colepiocephale
Sep 13, 2023	9:21	20:00	Vicissitudinous Vercingetorix
Sep 14, 2023	7:30	14:00	biochemical Becklespinax
Sep 15, 2023	7:00	13:00	Not-Present Nqwebasaurus
Sep 16, 2023	6:57	13:24	Adjectiveless Asiatosaurus
Sep 17, 2023	10:00	20:00	generous Jinfengopteryx
Sep 18, 2023	8:00	14:00	bash.Ornithomimus
Sep 19, 2023	9:00	20:00	Twirling Titanosaurus
Sep 20, 2023	6:00	12:00	long Dilong
Sep 21, 2023	11:00	19:00	Doctor Dollodon
Sep 22, 2023	8:16	16:17	Inquisitive Ingentia
Sep 23, 2023	7:00	13:00	dyscalculic Dyslocosaurus
Sep 24, 2023	8:30	16:00	Comedic Genius Genyodectes
Sep 25, 2023	8:00	15:00	Mnemonic Mnyamawamtuka
Sep 26, 2023	7:15	14:00	gnarly Nasutoceratops
Sep 27, 2023	7:00	13:00	anxious Alxasaurus
Sep 28, 2023	6:30	12:00	Adiabatic Aepisaurus
Sep 29, 2023	7:30 one for you, one for bae	14:00 you'll have to fight over it	cozy Coelurus
Sep 30, 2023	7:30	13:00	Dipressed Diplodocus

Hints

Solution for September 4, 2023

Thermo: clover

Kropki: Bill Murphy

Killer: Philip Newman

Spoiler for September 16, 2023:

It's the only zeroless pandigital number which has the property that the first n digits are divisible by n .

Hint for September 17, 2023:

Keep an eye out for situations where a cell has two possible values that are consecutive to each other - for instance, a cell marked with "3/4". Even though you don't know exactly what value goes in that cell, you do know that neither a 3 nor a 4 can go next to it, unless the cells are marked as consecutive. That's because placing a 3 adjacent to such a cell would turn it into a 4, breaking the consecutive rule; placing a 4 next to it would turn it into a 3, also breaking the rule.

Spoilers for September 19, 2023:

Spoiler 1:

<future bakpao> a lot more manageable but... people might still struggle

Spoiler 2:

<future bakpao> No, that was just everyone reading this, probably. Look, why don't you just post the cute dino thing, it's GAS enough but feels a bit long.

Spoiler 3:

<future bakpao> Don't forget the feels a bit long part.

Joke and Hints for September 25, 2023:

What do gorillas like even more than bananas?

Ape-ricots

Teensy GAS 101 Hints:

Top In row 2, what is the maximum sum for the arrow? / After filling it, what options do you have for r1c2 and r1c4?

Bottom The row 9 arrow only contains two digits, so what must r9c6 be? / What does that mean for the row 8 arrow?

Spoiler for September 28, 2023:

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