

GAS Leak

Genuinely Approachable Sudoku from the CtC Discord

Volume 24:

January 2023



A new year, a new GAS Leak! This month saw my first disastrous attempts to get ChatGPT to help me organize and typeset this document. If you're curious what happens when you do that (and why it's still me writing this, and not our new robot overlords) - it does a nice job on the first couple of entries, then goes completely off the rails and begins writing its own intros, complete with novel sudoku variants and dinosaur names. Alas, you're stuck with me for now!

As always, this document contains the GAS puzzles from the previous month (January 2023), plus five bonus puzzles that didn't quite fit the regular series. Time standards and dinosaur names appear at the very end of the document. Happy solving!

Clower

January 1, 2023: Zone Sudoku

Bill Murphy

We've been on a tear with the simple straight forward sudokus the last three days! This is on track to be a simple, straight forward GAS set video for Mark! Possibly his fastest ever!

Can I get a hallelujah, Daily Sudoku Solver?

Hallelujah!

Let's keep it going with just some straight-forward stuff, no nonsense, let's just keep it sensible for the rest of this set of puzzles! Keep Mark in the Zone for solving!

Can I get an amen, Daily Sudoku Solver?

Amen!

If your solve is strong, the next day will not yield a condemnation from the whispering demon. If, during this Zone Sudoku, you can fill this grid, where Normal Sudoku Rules Apply, Each cage must contain the digits listed in the top left corner.

Can I get a bless, Daily Sudoku Solver??

Bless!

	38							
47		11126						
			23344		3566			
					44456			
		2559				37779		
							5	

f-puzzles: <https://f-puzzles.com/?id=2qh6vn5a>

CTC: <https://tinyurl.com/5n7275a6>

January 2, 2023: Feličan Novjaron

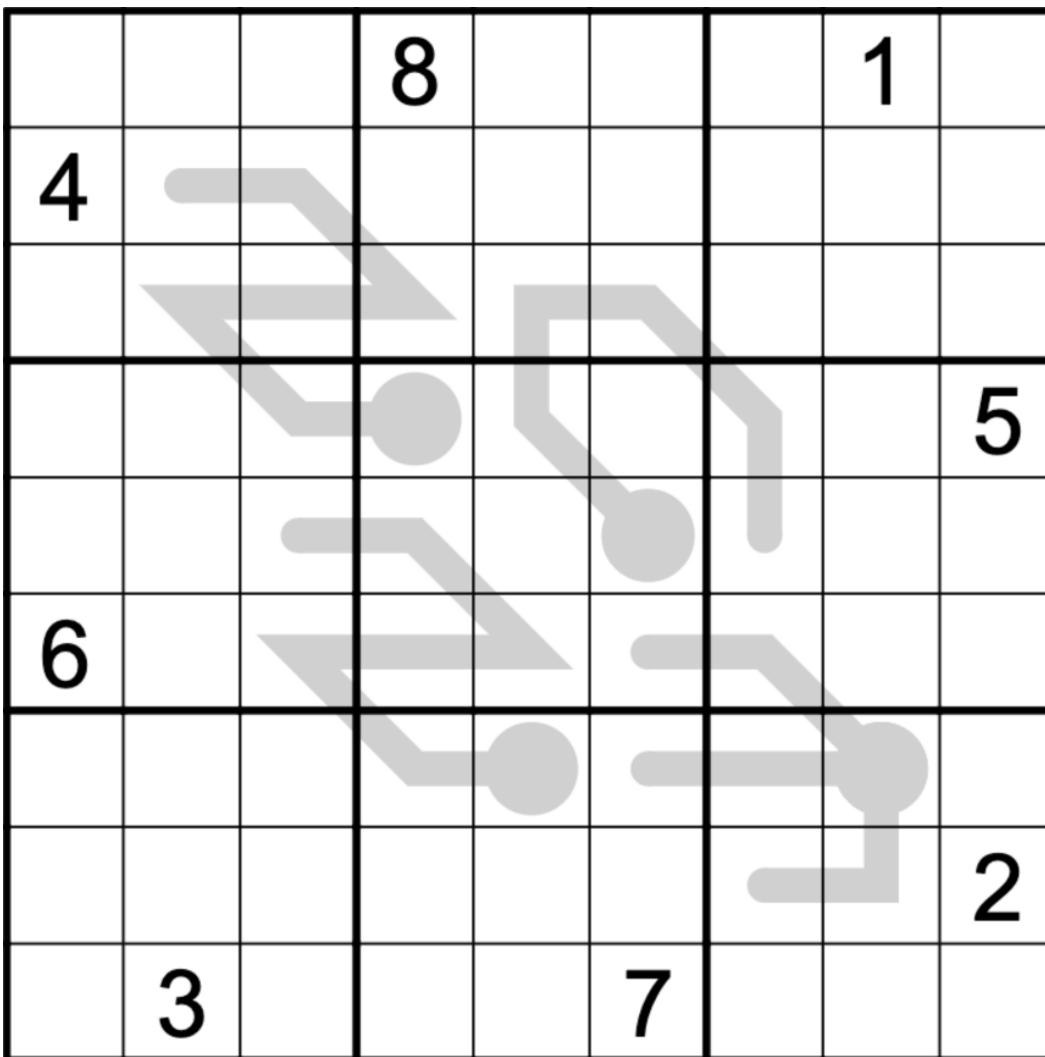
Philip Newman

Happy New Year, GAS solvers!

My completely original new year's resolution this year is to provide completely original GAS for you to solve. Also, completely original intros.

Today's GAS is a Thermo Sudoku!

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



Play on f-puzzles: <https://f-puzzles.com/?id=2k3chkjr>

Play on CTC App: <https://tinyurl.com/y2wf9pyp>

January 3, 2023: Best Friends

Clover

Today's GAS is a best friends sudoku. Tag your bestie in the comments. Unless your bestie doesn't like sudoku. In that case, tag them anyways and we'll try to convince them.

Normal sudoku rules apply. Also, clues tell you a pair of digits that must appear adjacent to each other (in either order) in that row or column. For instance, in row 9, 7 and 8 must appear directly next to each other in some order.

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

f-puzzles: <https://f-puzzles.com/?id=2pwjjg9u>

CtC: <https://tinyurl.com/49zhsu9r>

January 4, 2023: Single Ladies

Bill Murphy

An Apology, Daily Sudoku Solver, I didn't say Happy New Year! Best wishes to you all, I hope the universe is kind and meets your dreams with the energy you need for 2023.

For me, despite my new job, new house, fresh start, things are basically the same. I promise to make Mark keep reading insane intros and to keep winding Philip up, like with today's Fortress Sudoku.

Now, viewers of Cracking the Cryptic may recognise the pattern as the "Phistomefel Ring". SET isn't a GAS technique, never will be and you don't need it for this puzzle but stealing the first GAS Phistomefel Ring puzzle out from under Phillip is so very worth it. Happy 2023 to us all. Cheers 😊

Normal sudoku rules apply. Cells with outward-facing arrows must contain higher digits than their orthogonal neighbours.

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

f-puzzles: <https://f-puzzles.com/?id=2kxfer64>

CTC: <https://tinyurl.com/mpdy695n>

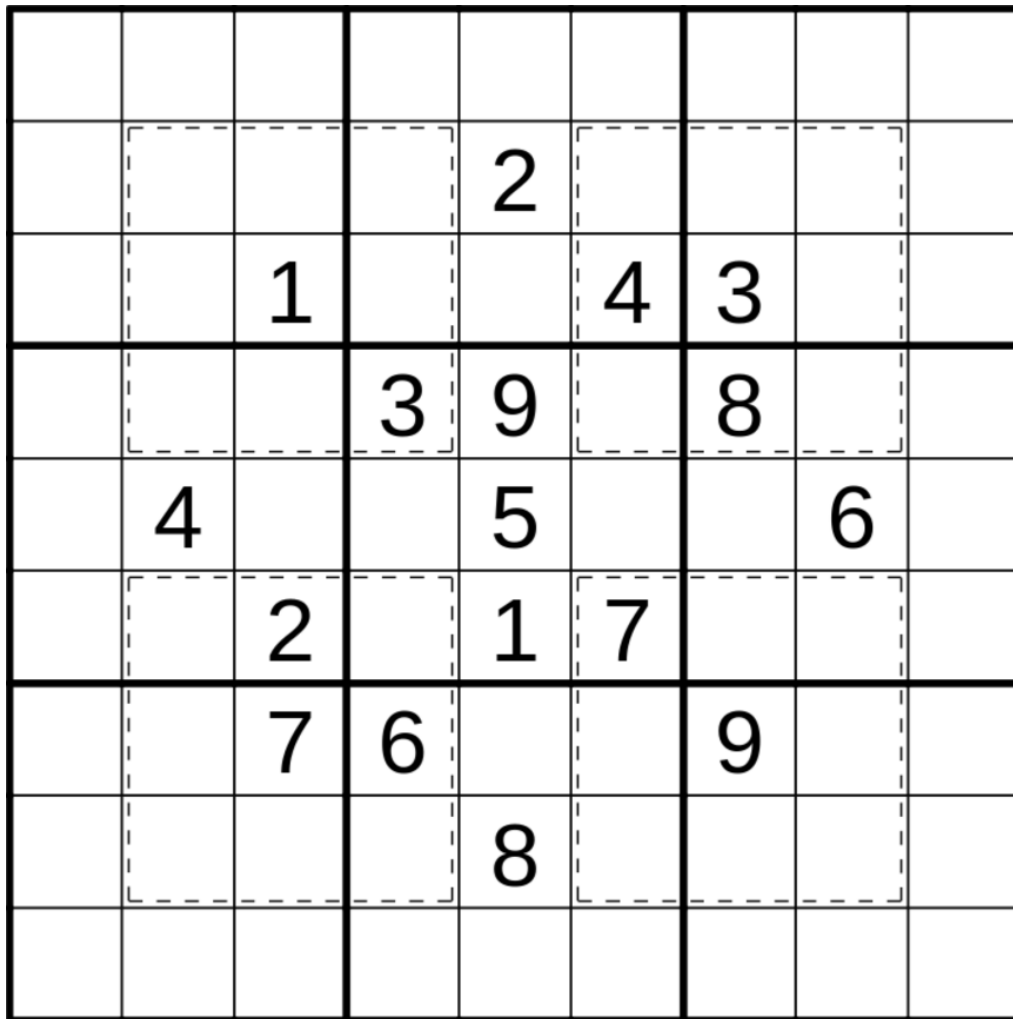
January 5, 2023: Another Sill-y Title

Philip Newman

It's cute that Bill thinks I haven't done a Phistomefel Ring Fortress puzzle in GAS before... It's ok, no one tell him, let him have this.

Today is National Bird Day in the US 🐦. You'd think GAPP would have mentioned this, but apparently I'm the only one on either team that pays any attention to important days. clover even missed Tolkien's birthday!

What does any of this have to do with today's puzzle? Absolutely nothing! Today's GAS is a Windoku! Normal sudoku rules apply. Additionally, each marked "window" region must contain each of the digits from 1 to 9 without repeats.



Play on f-puzzles: <https://f-puzzles.com/?id=2njin2v4g>

Play on CTC App: <https://tinyurl.com/5n8cx29t>

January 6, 2023: CHAOS CONSTRUCTION

Clover

forgive me 🙏

Today's GAS is a chaos construction sudoku!

Fill the grid with the digits 1 through 6 so that each digit appears once in each row, column, and 6-cell region. The regions aren't provided, so you'll have to find them!

The digit in each cell with a circle tells you how many of the orthogonally adjacent cells - plus the circle cell itself - are part of the same region. For instance, if a circle cell contains a 5, then all four of the adjacent cells, plus the circle cell itself, are in the same 6-cell region.

For answer check, draw all edges inside of the grid with the "edge" tool (using the default green color), and fill in all numbers with the "sudoku" tool (using the default blue color).

1		2		3	
	5		4		3
				○	
		○			
	2		3		1
3		4		6	

Penpa: <https://tinyurl.com/2gxnd8qw>

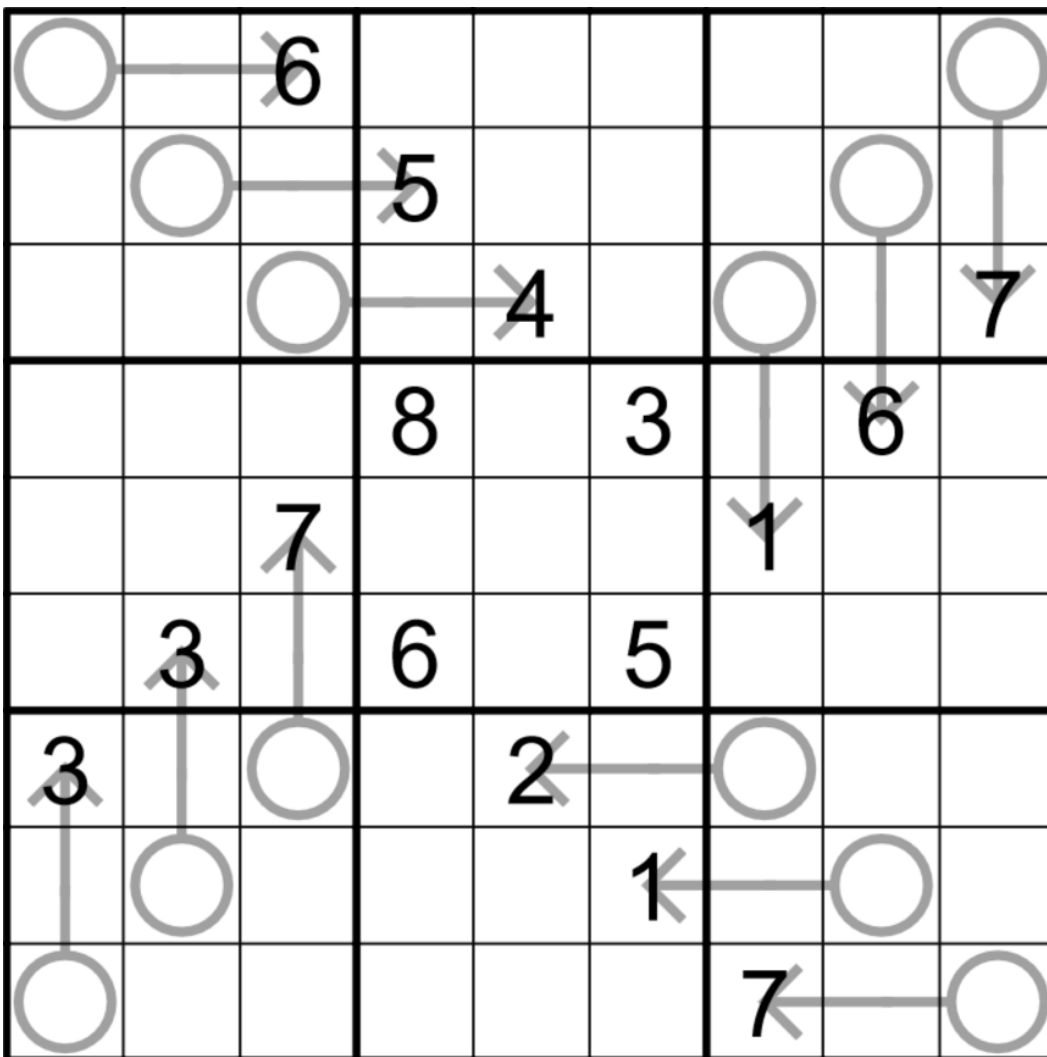
January 7, 2023: So Ubuji

Bill Murphy

In Australian science news, today's arrow sudoku is dedicated to the Ibis, the oft-denigrated 'bin chicken' who have finally found a way to defeat (read: hunt) one of the most ubiquitous invasive species in Australia, the cane toad. They will place them in a chokehold with their beaks to stress them out so that they release all their poison, then will take them down to the river to wash their food before eating it.

Life finds a way baby!!

Normal sudoku rules apply. Digits along an arrow must sum to that arrow's circled digit.



f-puzzles: <https://f-puzzles.com/?id=2ezy3g3v>

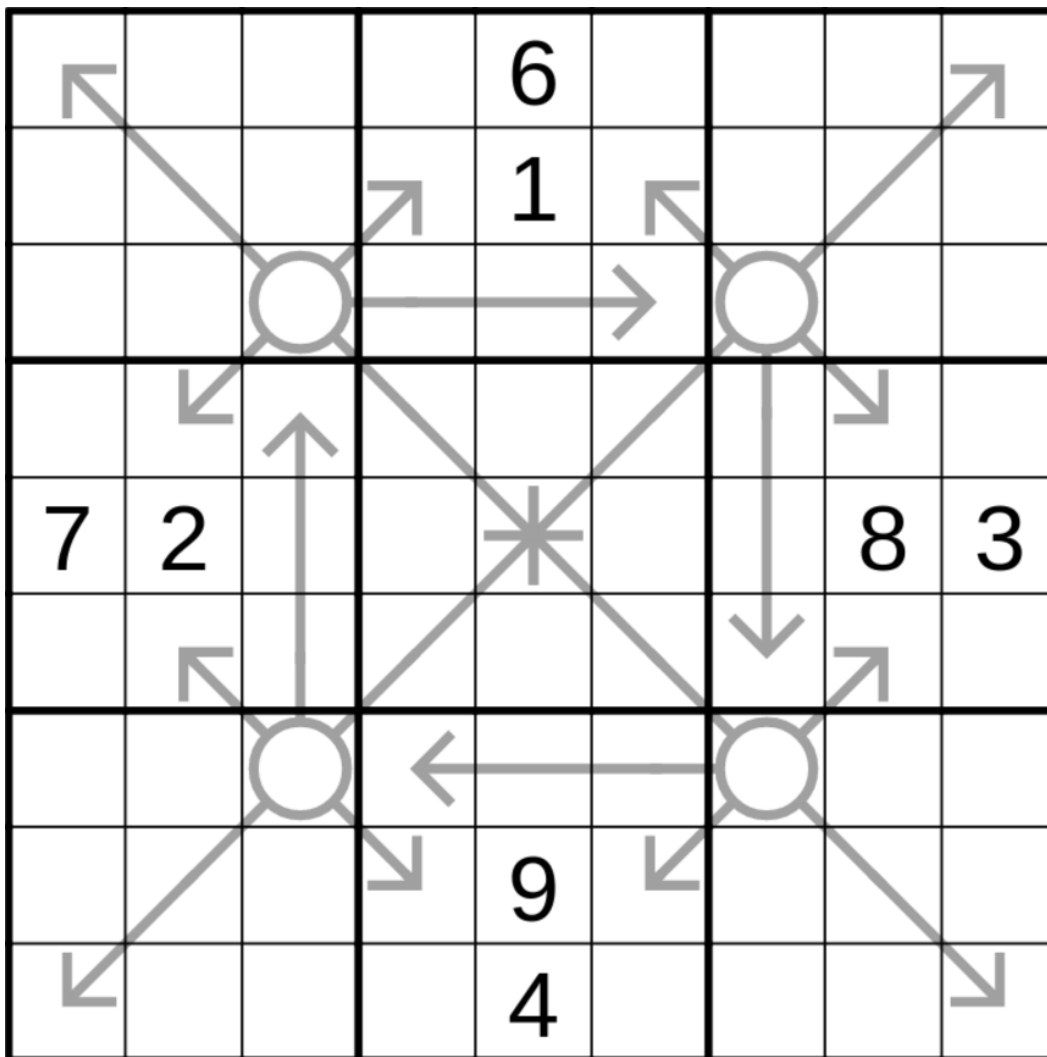
CTC: <https://tinyurl.com/2p8d97hh>

January 8, 2023: Arrowdynamics

Philip Newman

Today's GAS, an Arrow Sudoku, is dedicated to my brain, which is currently a mess and forgot Bill had an arrow puzzle teed up for yesterday. (Fortunately for Mark, I think they will land in separate videos and he won't have to transition from a Bill Murphy Arrow to a Nemesis Arrow.)

Normal sudoku rules apply. 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=2ld4cge6>

Play on CTC App: <https://tinyurl.com/yeyjcy82>

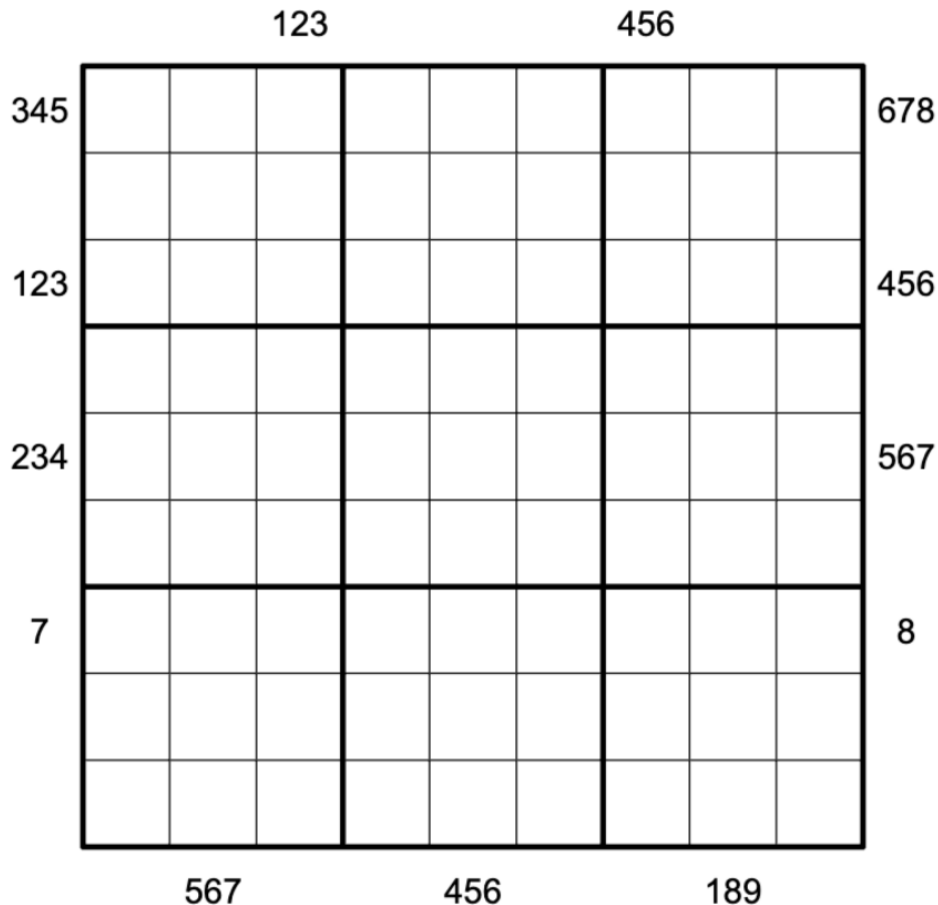
January 9, 2023: Outside 234

Clover

Good morning, friends! We've reached the best time of the year once again: sudoku Grand Prix season!! You know how this works: there are eight rounds, each taking place over a weekend for the next few months. For each round, if you do at least one puzzle from the instruction booklet, you'll earn a bedazzled cowboy hat. 🤠 If you finish the instruction booklet and/or take part in the actual contest, there's a second cowboy hat waiting for you. 🤠 Here's where to find the booklet for this weekend's round, which comes from India:

<https://gp.worldpuzzle.org/content/instruction-booklet>

To kick things off, today's puzzle is a variant that appears in the upcoming round: an outside 234 sudoku. Normal sudoku rules apply. Also, the digits next to a row or column must appear in the 2nd, 3rd, and/or 4th cells in that row or column, from the direction of the clue.



f-puzzles: <https://f-puzzles.com/?id=2po99xjw>

CtC: <https://tinyurl.com/46k56xnz>

January 10, 2023: Clock Sudoku

Bill Murphy

I've been out all day! All Day! Sometimes you just wanna sit, be quiet and do the Sudoku GP Instruction Booklet puzzles. Then you've gotta socialise and clean and then post GAS, it's enough to drive a man batty.

So for me, it's time for a quiet evening. For you, it's time for Clock Sudoku!

Normal Sudoku rules apply. In addition, there are several digital displays in the grid; each of these must contain a valid time in 24-hour format. For example, 19:47 and 23:41 would both be fine but you can't have 17:82 or 31:45.

Editor's note: the puzzle was originally accompanied by the following hint.

The numbers that go before the colon must be between 12-23 inclusive and the numbers that go after the colon must be between 12-59 inclusive.

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

f-puzzles: <https://f-puzzles.com/?id=2hfnun82>

CTC: <https://tinyurl.com/bddhnmr3>

January 11, 2023: Mathception

Philip Newman

So, I'm having a rough time right now. (So as to not to concern everyone - there is nothing major wrong. Just a lot of things adding up.)

I'm not going to get into everything that's going on, but I was hoping that getting my allegedly fixed computer back would help today. An hour in the car and the cost of a replacement CPU later, and... nope. Plugged it in, a minute later it shut itself off just like before.

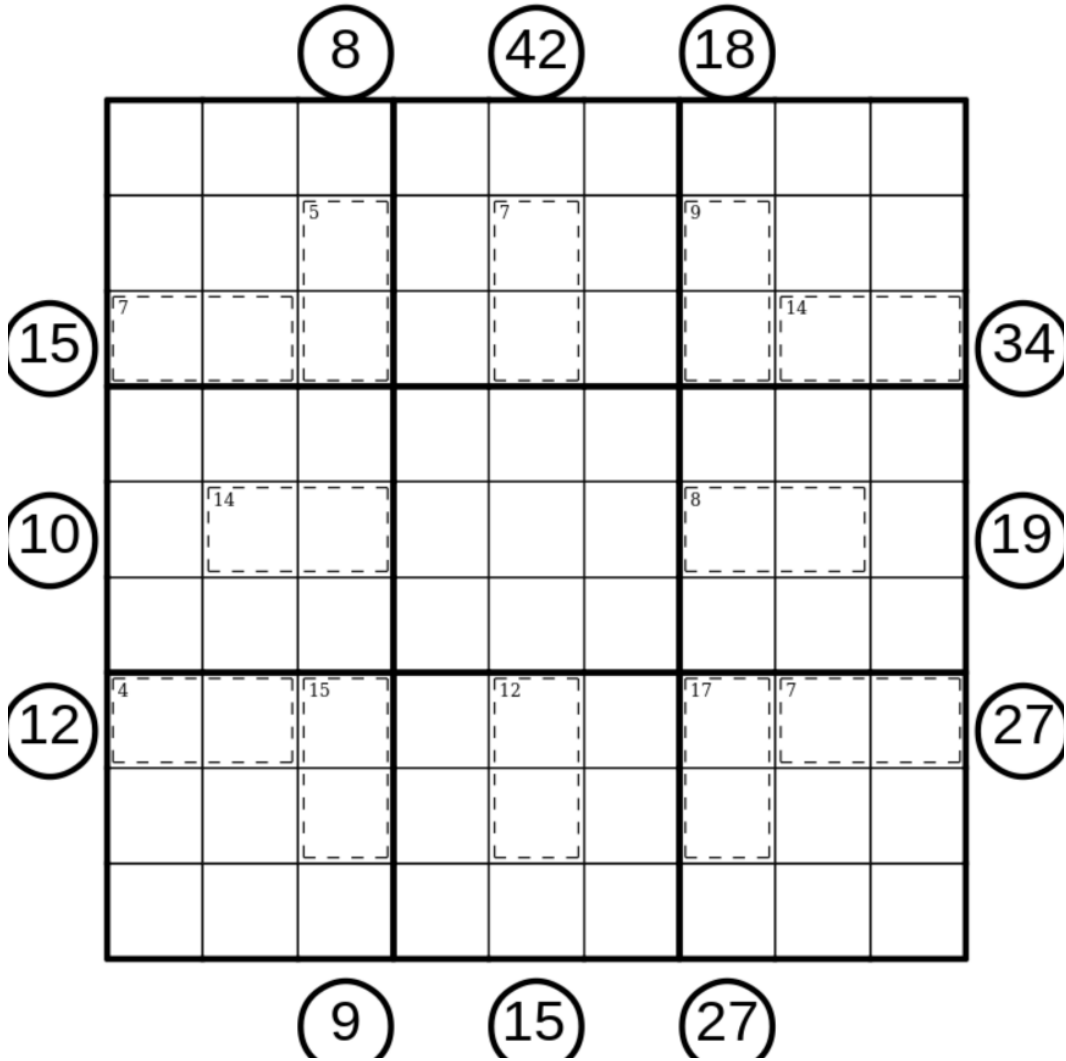
Fortunately, getting GAS up does not rely on that computer. I just needed to vent. (Also, if you want to support my poor computer, I do have a patreon...)

Today's GAS is another variant in the upcoming Sudoku Grand Prix: Killer X-Sums Sudoku!

Normal sudoku rules apply.

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

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



Play on f-puzzles: <https://f-puzzles.com/?id=2k3jwp3g>

Play on CTC App: <https://tinyurl.com/yc72yj2d>

January 12, 2023: Greater Than Sudoku

Clover

Today's GAS is a greater than sudoku.

What's greater than sudoku?

Well, nothing, if you ask me! 😊

Normal sudoku rules apply. Also, some inequality signs (<) appear in the grid. The digits in the cells separated by an inequality sign must obey that inequality. (The open end of the < points towards the larger number, such as 3 < 5.)

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

f-puzzles: <https://f-puzzles.com/?id=2jzb7r5v>

CtC: <https://tinyurl.com/kkrvnps7>

January 13, 2023: Benediction

Bill Murphy

Today is the second anniversary of the passing of my partner, Lisa. As you can probably understand, the jokes will resume next time.

Today's GAS is a Magic Square Sudoku. Normal sudoku rules apply. Digits in blue squares must be a magic square where they contain the digits 1-9 and each row, column and diagonal must have the same total.

Editor's note: Note that for a 3x3 magic square containing 1-9, the sum of every row, column, and diagonal is exactly 15. Also, the puzzle was originally accompanied by the following hint:

The odd numbers make a + shape in the square, with 5 in the center. Even digits go in the four corners.

		1						
	2				7			
					2			
			8					
			3				8	
						9		

f-puzzles: <https://f-puzzles.com/?id=2fn77pds>

CTC: <https://tinyurl.com/2p87n567>

Editor's note: the previous puzzle was originally posted alongside lyrics from 'Benediction' by Touché Amoré. The lyrics and a link to the song appear below.

I'm still taking it all in
I'm adapting to this loss
People say that with time it gets easier
But I just think that they are wrong

You left a hole in this earth
And you paid for it up front
I had to fill it with dirt
While your friend sang the song

May the lord
Mighty God
Bless and keep you forever
Grant you peace
Perfect peace
Courage in every endeavor

<https://www.youtube.com/watch?v=z5PDs2VlnSc>

January 14, 2023: El Clásico

Philip Newman

Good news everyone! [Insert Futurama Meme Here] My computer is finally working again, huzzah! It was not the CPU at all, but rather the CPU cooler. We're currently running at a cool 31C, which is much better than approaching the boiling point of water.

It's a busy day in Puzzle-land, with the Sudoku Grand Prix happening alongside the MIT Mystery Hunt. Here's hoping my brain won't overheat like my CPU.

Today's GAS is a Classic Sudoku!

Normal sudoku rules apply. And that's it!

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

Play on f-puzzles: <https://f-puzzles.com/?id=2kz2sz2u>

Play on CTC App: <https://tinyurl.com/bd698rww>

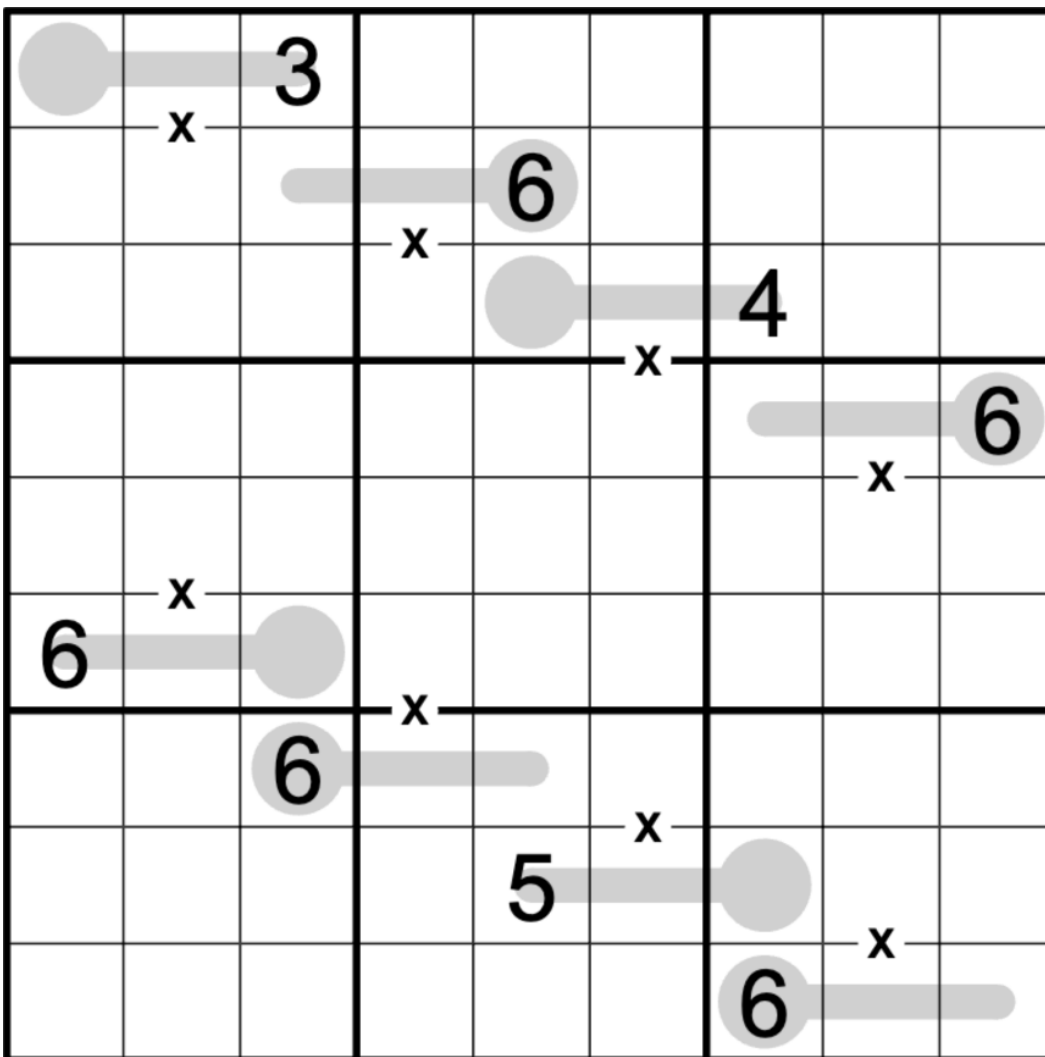
January 15, 2023: X Thermo

Clover

This sudoku has eight thermometers in it that are all precisely the same size. I guess you could say they're *fair in height*.



Normal sudoku rules apply. Also, digits along thermometers must increase (not necessarily consecutively!), starting at the round bulb. Digits separated by an X must sum to 10. Not all possible Xes are necessarily given.



f-puzzles: <https://f-puzzles.com/?id=2ohf62e8>

CtC: <https://tinyurl.com/y8rbsc44>

January 16, 2023: Big Bang

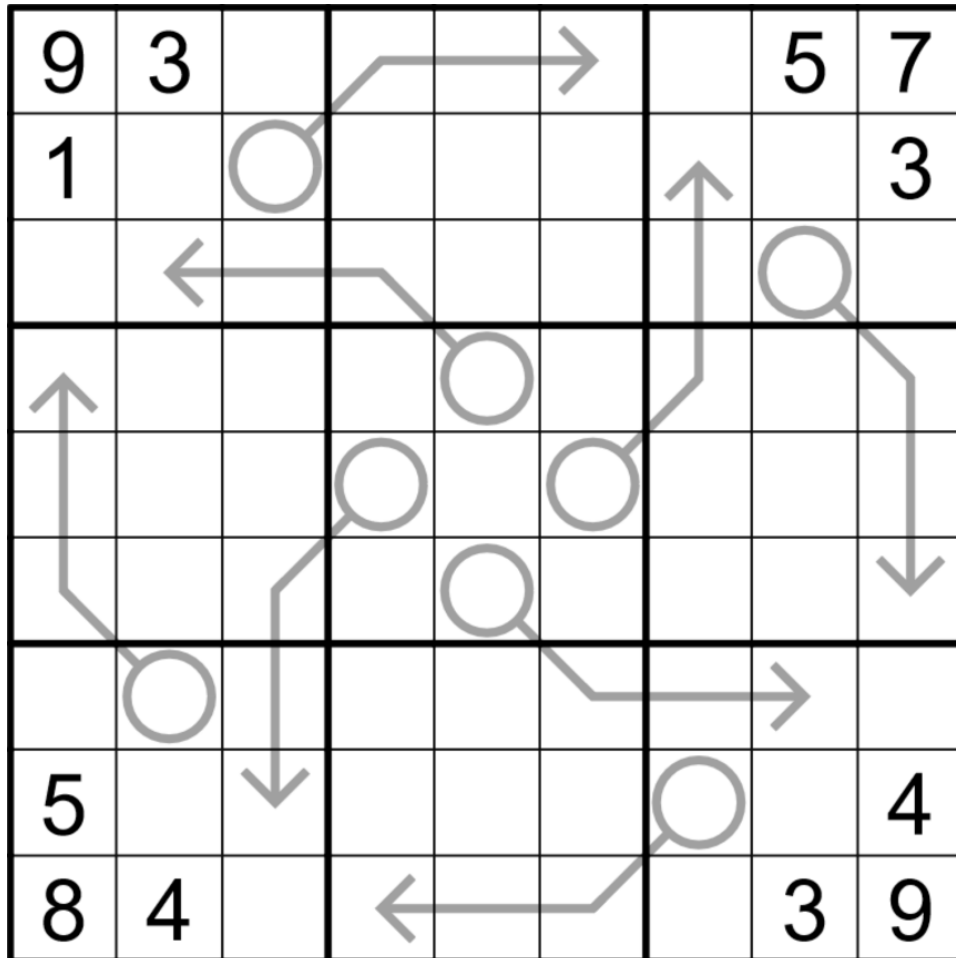
Bill Murphy

I'm on holiday! I was already on school holidays, but I'm in Sydney or as those who are in the know call it, "Bad Melbourne". I'm filming my third quiz show appearance in 18 months tomorrow, (if the words 'specialist subject', 'general knowledge round' and 'black leather chair' mean anything to you, you are either a real one or a British person over the age of 50). As I type this I'm in the hotel lobby doing last minute revision next to the tea and coffee.

QUICK SOLVES AND HIDDEN TRIPLES WILL COME YOUR WAY BUT ONLY IF YOU TYPE "Gl;hf Bill" IN THE COMMENTS

So yeah, sue me, I'm phoning it in a little today. Yeah I know I did an arrow sudoku not that long ago, yeah I know it's in a clover pattern, whatcha gonna do about it?

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



f-puzzles: <https://f-puzzles.com/?id=2q3c6soj>

CTC: <https://tinyurl.com/24ckdbre>

January 17, 2023: Repeat After Me

Philip Newman

Well, I survived a puzzle-filled weekend, but my brain is definitely melted. I no longer have the computing power to place all nine digits on diagonals, so today's GAS is an Antidiagonal Sudoku!

Normal sudoku rules apply. Each marked diagonal only contains three distinct digits.

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

Play on f-puzzles: <https://f-puzzles.com/?id=2zo8jnh9>

Play on CTC App: <https://tinyurl.com/57x798n9>

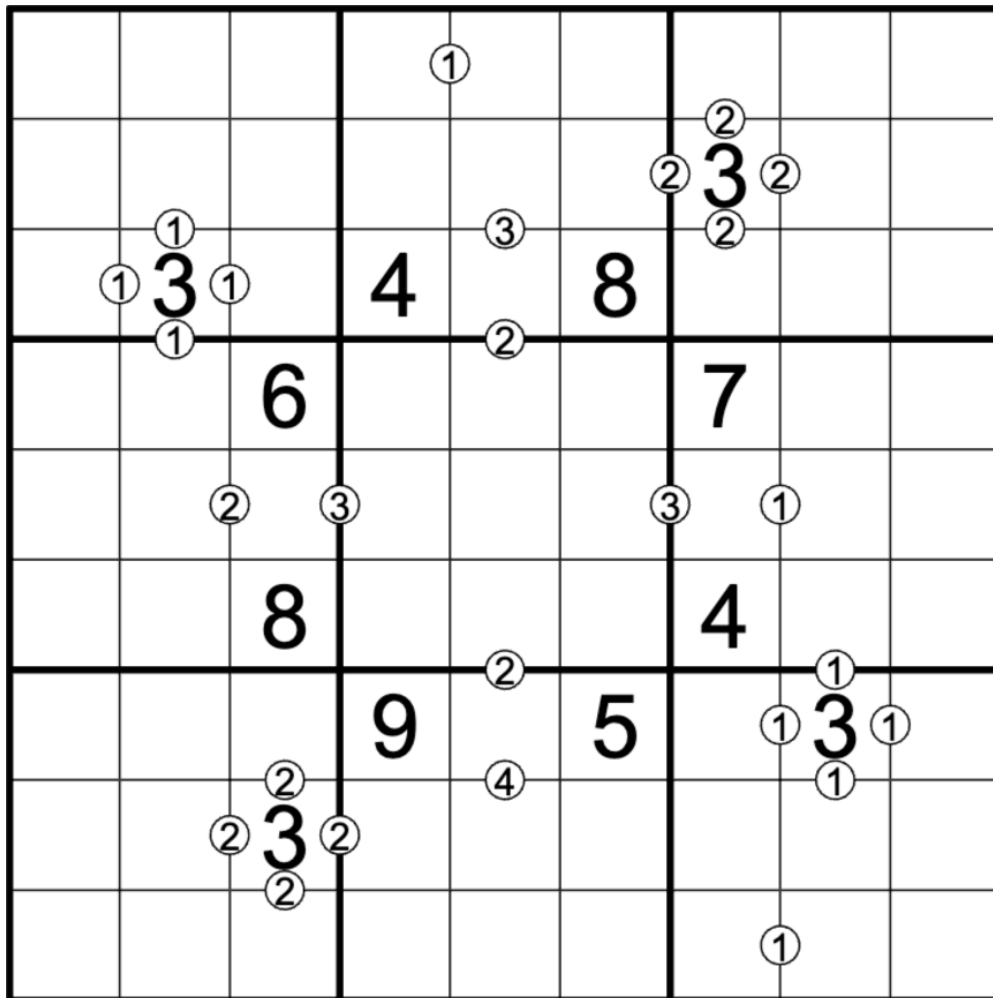
January 18, 2023: Tens Digit Product

Clover

Don't you think we sudoku solvers spend too much time worrying about tiny differences between tiny digits? We really ought to pay more attention to the big picture. Think less '3 versus 4' and more '30 versus 40'. Today's GAS celebrates something rarely seen in sudoku: the tens digit.

Normal sudoku rules apply. The value in a circle between two cells is the tens digit of the number you get by multiplying the digits in those two cells together.

For instance, a clue of 1 could separate the digits 3 and 4, because $3 \times 4 = 12$, which has a 10s digit of 1. A clue of 3 could separate the digits 5 and 7, because $5 \times 7 = 35$, which has a 10s digit of 3.



f-puzzles: <https://f-puzzles.com/?id=2e3eljsj>

CtC: <https://tinyurl.com/2p85dadt>

January 19, 2023: Back to the Ratio

Bill Murphy

G'Day Sudoku Fans,

One of the most common questions in this channel is "How do I get better at solving?/How do I improve my times?/How do I get those sweet sweet party hats?" To which, the most common answer is, of course, practice. My take on it is a little different, it's pattern recognition. Once you do enough variant sudoku and even classic sudoku, you start to pick up the little tricks and you see the same things over and over again.

It's how you know German Whispers can never have a 5 on a line, alternates high low and 4/6 are incredibly restricted.

It's how you know the effect of a digit in r3c5 on box 5 in an anti-knight sudoku.

It's how you know you know that certain killer cages are forced.

It's how you know that standard black dots in ratio/kropki sudoku must have 1, 2, 3, 4, 6 or 8.

And building knowledge like that allows you to take the things that you know and flip them to variants and other puzzles you haven't seen before.

Take today's ratio sudoku for example, it's not like any other we've had, but a lot of the same knowledge and skills will still apply. Remember that we're always learning, making mistakes is a part of that and it's never about where you start, it's where you end up.

Normal Sudoku Rules Apply. Digits placed in adjacent cells must satisfy the ratios, where given.

eg. If 2/3 connects a pair of cells, it must be either 2-3, 4-6 or 6-9.

	$\frac{1}{5}$	$\frac{1}{2}$					$\frac{2}{3}$	
		$\frac{1}{3}$					$\frac{1}{2}$	$\frac{2}{7}$
		$\frac{1}{4}$		$\frac{1}{2}$			$\frac{1}{3}$	
				7				
				$\frac{1}{3}$			$\frac{1}{5}$	
					$\frac{5}{7}$			
		1		2			6	
				$\frac{1}{4}$				
		$\frac{5}{9}$			$\frac{3}{4}$			
				9				
		$\frac{3}{5}$			$\frac{1}{2}$		$\frac{5}{9}$	
	$\frac{4}{5}$						$\frac{8}{9}$	$\frac{2}{3}$
		$\frac{2}{5}$						$\frac{7}{9}$
		$\frac{5}{8}$						

f-puzzles: <https://f-puzzles.com/?id=2g6ov8p8>

CTC: <https://tinyurl.com/4jm5dwwy>

January 20, 2023: Cogito Ergo Sum to 5n

Philip Newman

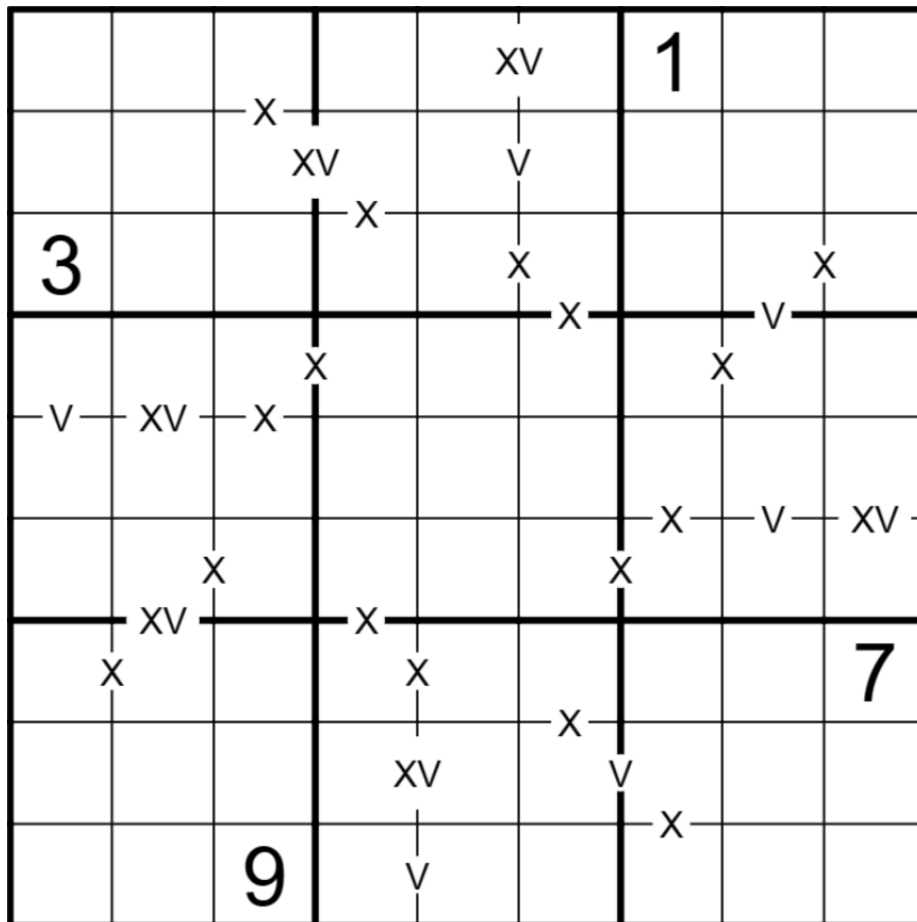
This puzzle has it all: A terrible pun for a title, a symmetric layout, a negative constraint, a smooth solve*... and even some SECRETS (not that SECRET**) hidden in the grid. Can you find them?

*Smooth solve guarantee applicable only in the contiguous daily-sudoku-team channel. YMMV.

**Actually, that SECRET might also appear somewhere in the grid. >_>

Today's GAS is an XVXV (-) Sudoku!

Normal sudoku rules apply. Digits separated by a 'V' must sum to 5; by an 'X' must sum to 10; and by an 'XV' must sum to 15. All possible multiple-of-5 pairs are given (if an adjacent pair of digits does not have a clue, the digits cannot sum to 5, 10, or 15).



Play on f-puzzles: <https://f-puzzles.com/?id=2kvfx4lr>

Play on CTC App: <https://tinyurl.com/ms47u6n2>

January 22, 2023: Round Off Sudoku

Bill Murphy

It's my birthday! 🎂

My birthday gifts are linen for my bed (in the new house!), a sweet cloak, a knitted jumper, a woolen jumper + Mark reading "Wicked Wicked Junglist Massive" in this intro eventually.

How old am I you ask? For the seventh year in a row, I have turned 30! I cannot wait to turn 40 in 4 years. If that sounds weird, I hope it makes sense after you read the rules for this Round-Off Sudoku below.

Normal Sudoku rules apply. Additionally, cages show you the result of rounding the two-digit number that they contain (read left-to-right or top-to-bottom) to the nearest multiple of 10. If a number ends in 5, it is rounded up.

10			20			70		
	8			7			4	
	30			50			60	
	50			60			70	
	2		4		7		6	
80			90			80		
70			60			50		
	9			8			1	
	20			30			40	

f-puzzles: <https://f-puzzles.com/?id=2mujr866>

CTC: <https://tinyurl.com/sppdc2ap>

January 23, 2023: How is Gattai pronounced in Japanese? Asking for a pun.

Philip Newman

Did you every think to yourself: "Self? What's up, how's it going? You/Me taking care of your/myself? So, I/you had a crazy idea. What if you/I make a puzzle with five tiny sudoku grids?"

No? Well, if you did, you might answer: "Oh hi self. Doing alright, how about your/myself? Isn't that just called a Gattai? Also, are/am you/I sure you're/I'm not actually clover? This is more her jam."

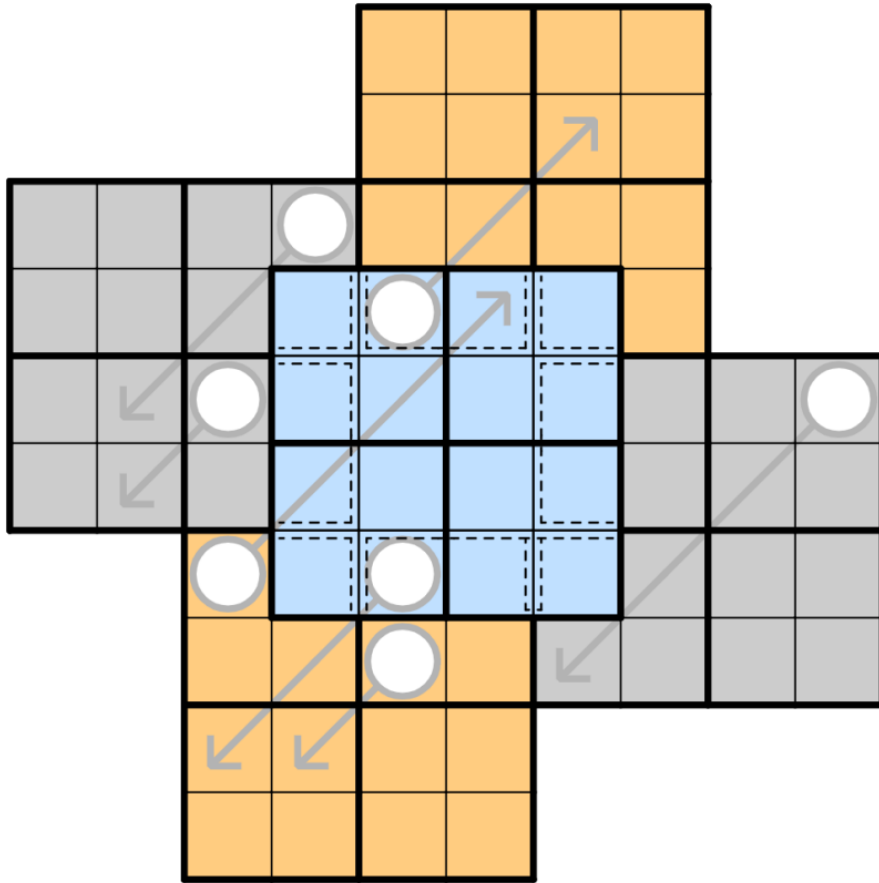
Today's GAS is a Mini Gattai Arrow Sudoku!

In each grid, normal 1-4 sudoku rules apply. The central grid overlaps with each other grid in three cells. (Cage borders are a reminder that the 2x2 regions of both grids apply to these overlaps!)

Along arrows, digits must sum to the circled total. (Digits may repeat if allowed by other rules.)

Editor's note: this puzzle was originally posted with the following hint.

If two grids overlap in three cells in a row/column, what can you say about the non-overlapping fourth cells?



Play in Penpa+: <https://tinyurl.com/5n9b7hvd>
Play in SudokuPad: <https://tinyurl.com/5c7bhkdw>

January 24, 2023: Teeny Tiny Thermos

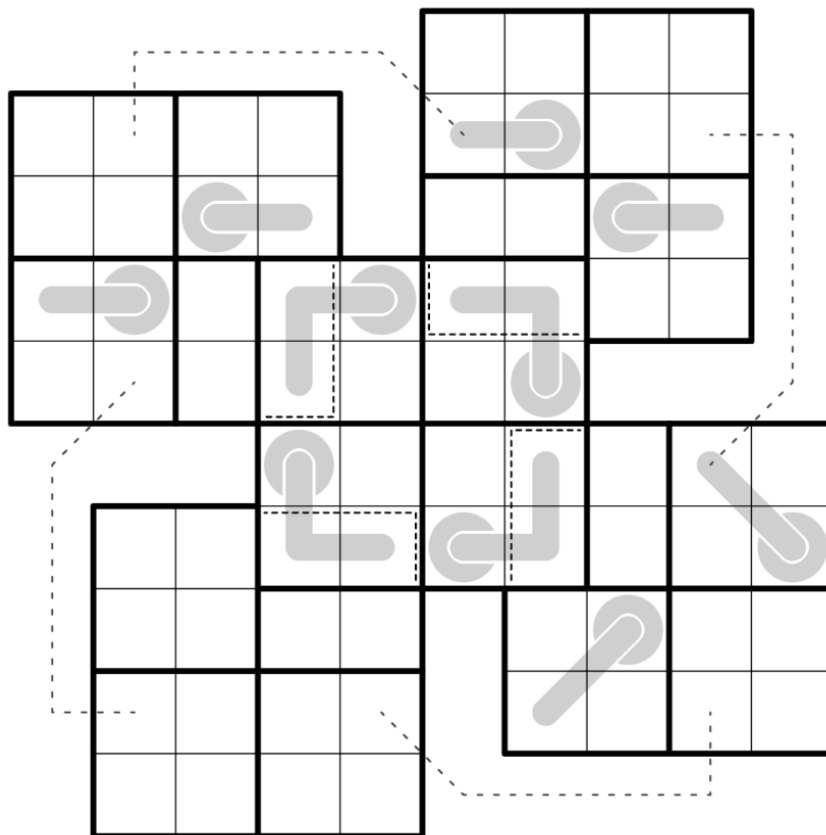
Clover

Good morning, friends, and welcome to Tiny Puzzle Appreciation Week! (And good morning, Mark - yes, we're trying to set a record for how many grids you'll be solving in a GAS video. I hope you like 4x4s!)

Today's GAS is a very tiny thermo gattai. The puzzle contains five overlapping 4x4 sudoku grids. Within each 4x4 grid, normal 4x4 sudoku rules apply. Wherever two grids overlap, those cells must obey sudoku rules within both grids. Be careful! Even if it looks like two cells can see each other, they might not actually be in the same 4x4 grid. If this is the case, then those cells could have the same digit.

There are also some thermometers in the grid. Along each thermometer, digits must strictly increase (not necessarily consecutively!), starting from the round bulb.

Digits that are joined by a dotted line must be equal.



CtC: <https://tinyurl.com/2s436uhh>

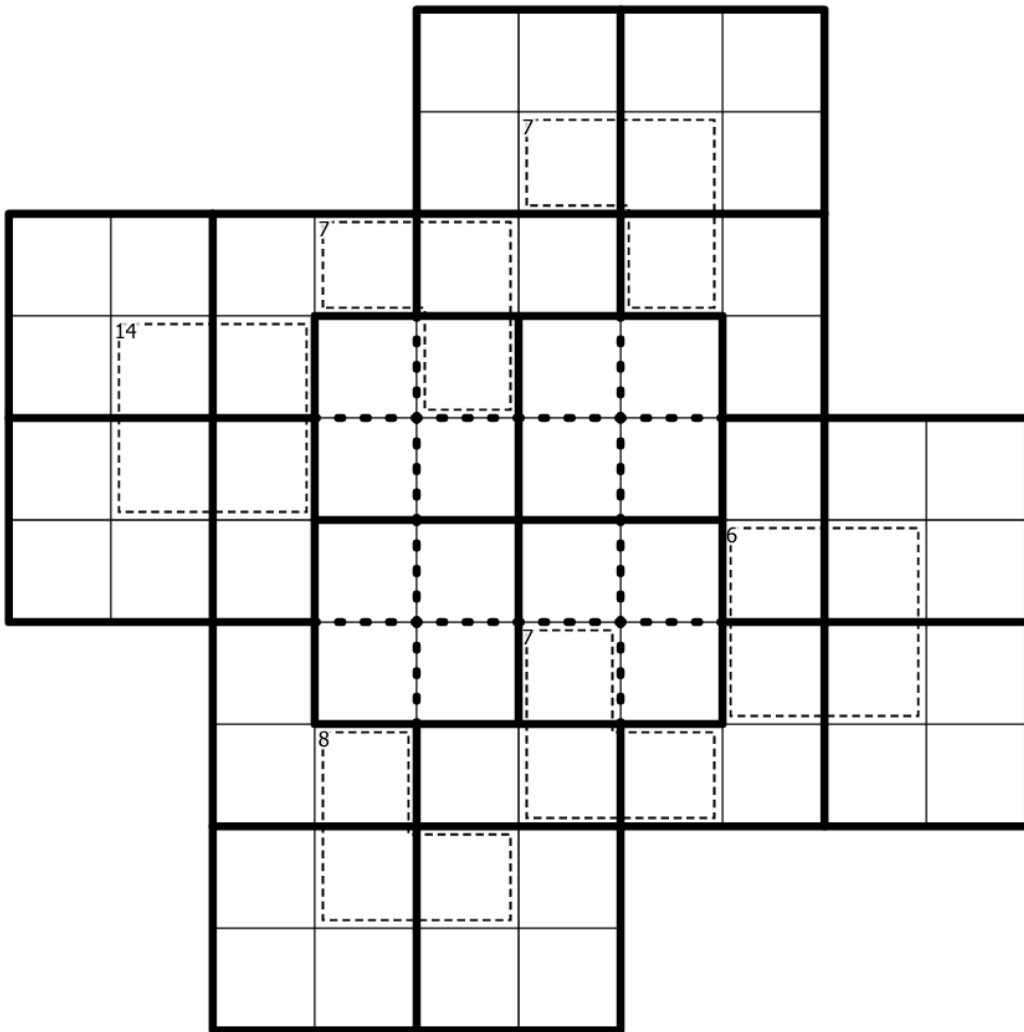
January 25, 2023: Serial Killer Gattai

Bill Murphy

...more like Gat-Why Not?

Today's GAS is a very tiny Serial Killers gattai. The puzzle contains five overlapping 4x4 sudoku grids. Within each 4x4 grid, normal 4x4 sudoku rules apply. Wherever two grids overlap, those cells must obey sudoku rules within both grids. Be careful! Even if it looks like two cells can see each other, they might not actually be in the same 4x4 grid. If this is the case, then those cells could have the same digit.

Digits in cages must sum to the total at the top left corner and each cage must have at least a repeated digit. (Repeated digits may repeat more than once and more than one digit in a cage may repeat where it does not break any other sudoku rules.)



CtC (coloured): <https://tinyurl.com/yckazcjz>
CTC (uncoloured): <https://tinyurl.com/32np496p>

January 26, 2023: Gattai Another Day

Philip Newman

Alternate titles for today's puzzle:

Live and Gattai

Gattai Who Loved Me

4x4 Gattais Only

Tomorrow Never Gattais (this one is clearly untrue)

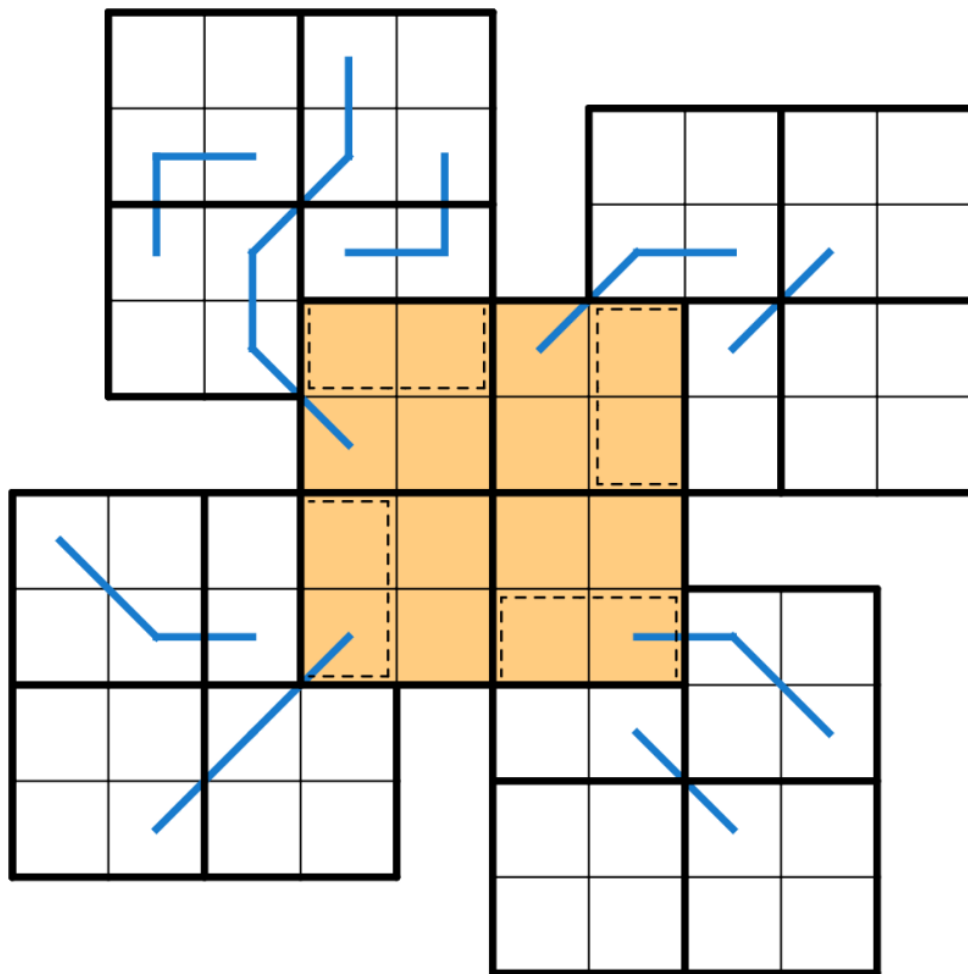
No Time to Gattai (also wrong, you have REDACTED time to Gattai!)

Today's GAS is a Mini Gattai Region Sum Lines Sudoku!

In each grid, normal 1-4 sudoku rules apply. The central grid overlaps with each other grid in two cells. (Cage borders are a reminder that the 2x2 regions of both grids apply to these overlaps!)

Also, there are some lines in the grid, and each line passes through more than one of the 2x2 regions. Along each line, the digits in every region it passes through have the same sum. (For instance, in the top-left grid $r2c1 + r2c2 = r3c1$)

Today's Tiny GAS 101 for those who can't figure out where to start: Where does 4 go in rows 2 and 3 of the top-left grid?



Play in Penpa+: <https://tinyurl.com/mub7ue67>
Play in SudokuPad: <https://tinyurl.com/2z3prx43>

January 27, 2023: I'm Your Tiny Samurai

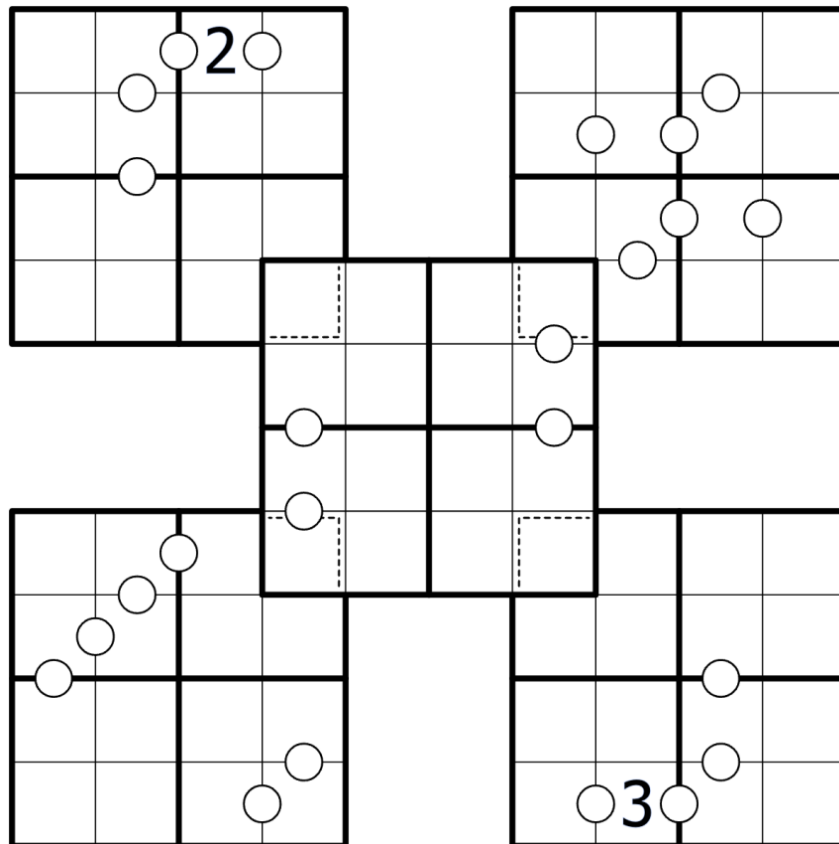
Clover

If you're reading this, you've made it to the end of our epic 25-grid week. (Here at GAS HQ, a 'week' is defined as 'the number of days covered by a single Mark video'.)

Anyways, thanks for sticking around! We've all learned a lot about ourselves - did you know before this week that a tiny part of your brain was fully convinced that 6 was a digit between 1 and 4? I sure didn't 😏

This tiny consecutive-pairs gattai contains five overlapping 4x4 sudoku grids. Within each 4x4 grid, normal 4x4 sudoku rules apply. Wherever two grids overlap, those cells must obey sudoku rules within both grids. Be careful! Even if it looks like two cells can see each other, they might not actually be in the same 4x4 grid. If this is the case, then those cells could have the same digit.

Also, digits separated by a white dot must be consecutive. Not all possible dots are necessarily given.



CtC: <https://tinyurl.com/578c6kf5>

January 28, 2023: #wavy

Bill Murphy

I made today's Classic Sudoku as a thing for a long-term friend who's going through a rough patch right now. (The title's an in-joke between us from during our uni days.) After five straight days of Gattai, here's a simpler, easier puzzle. Use the extra time and brainpower saved to tell a friend how much you appreciate them today.

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

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

f-puzzles: <https://f-puzzles.com/?id=2nyqshf8>

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

January 29, 2023: 2 Tortilla Chips

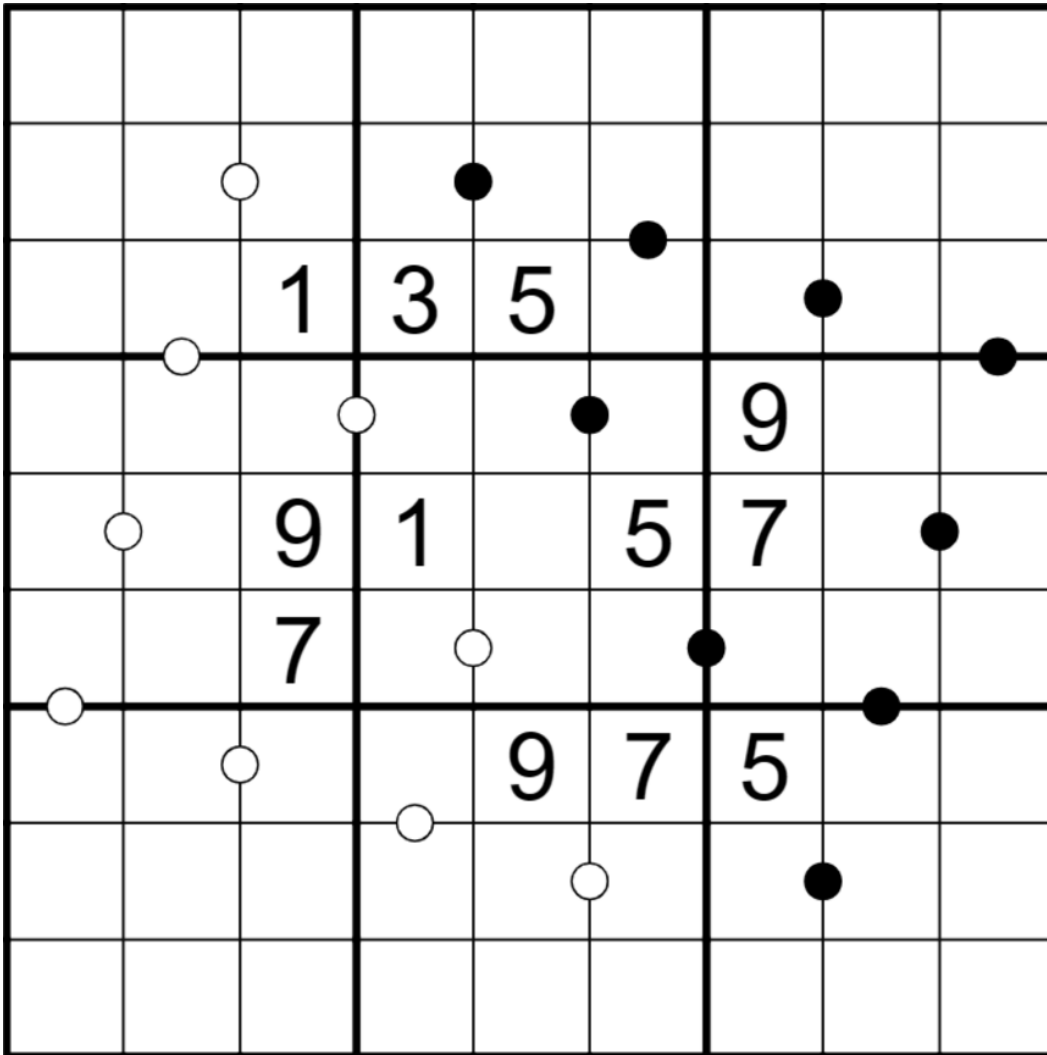
Philip Newman

Bill described today's puzzle as "like a green bean salad [crunchy the whole time, but delicious]". It doesn't look like a green bean salad, though, so I've named it after something else crunchy and delicious!

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 digits may also be consecutive or have a 2:1 ratio.)



Play on f-puzzles: <https://f-puzzles.com/?id=2mcqhs3a>

Play on CTC App: <https://tinyurl.com/2jmtspy5>

January 30, 2023: Pirate Sudoku

Clover

Today's GAS is a swashbuckling pirate sudoku. The ruleset for this puzzle is exceptionally flavorful, so I'll let it speak for itself (as it appeared in the recent 2023 German sudoku qualifier):

Apply Standard Sudoku rules. The digits 5 represent treasures and they are horizontally and vertically protected by pirates (digits 1-4). The commoners (digits 6-9) cannot be found in cells horizontally or vertically connected to the treasures.

In other words, each 5 in the grid is orthogonally adjacent only to low (1234) digits. 5 is never orthogonally adjacent to high (6789) digits.

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

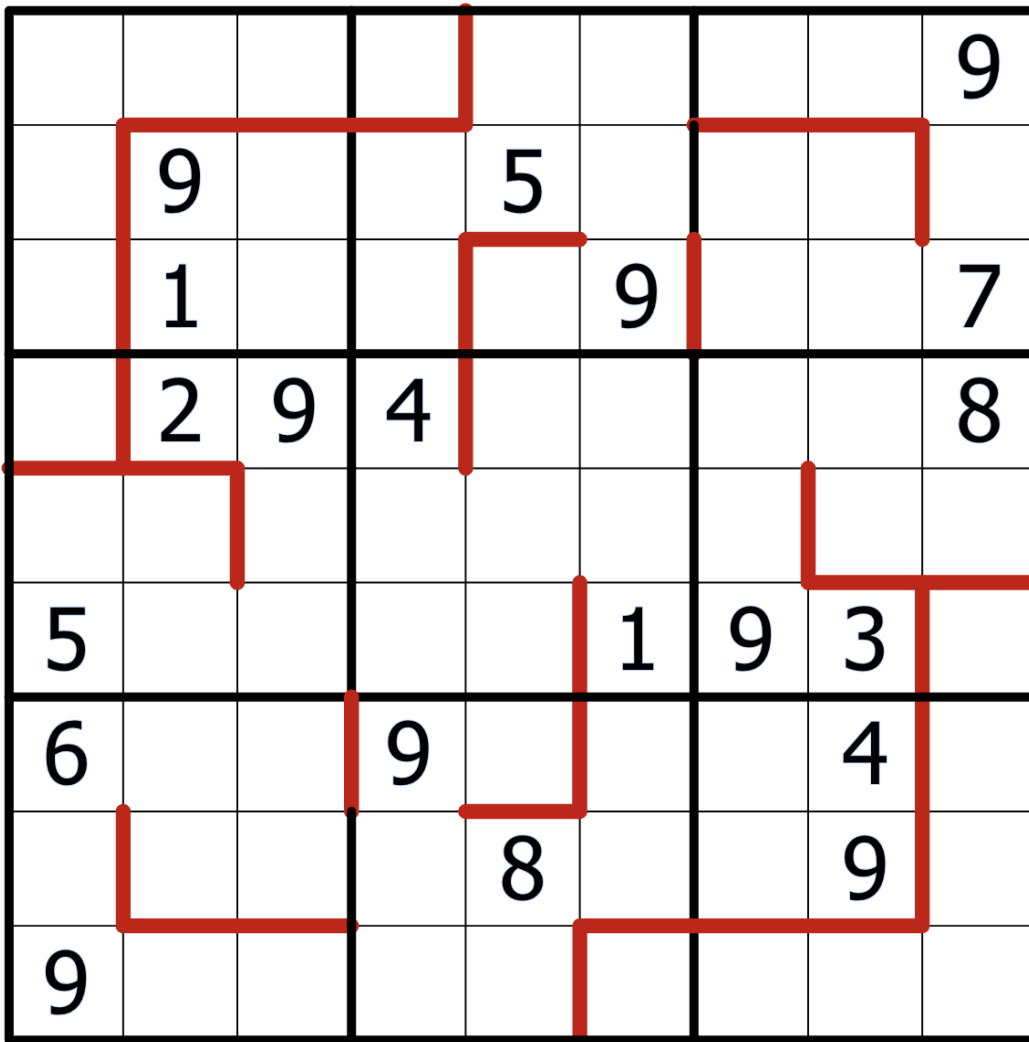
f-puzzles: <https://f-puzzles.com/?id=28tbxxas>

CtC: <https://tinyurl.com/4b4ycysp>

Bonus 2: Dragon Sudoku

Clover

Normal sudoku rules apply. Each 9 sees exactly one set of the digits 1 through 8; a 9 sees each digit in every orthogonal direction up until its line of sight is blocked by a wall (a red edge.)

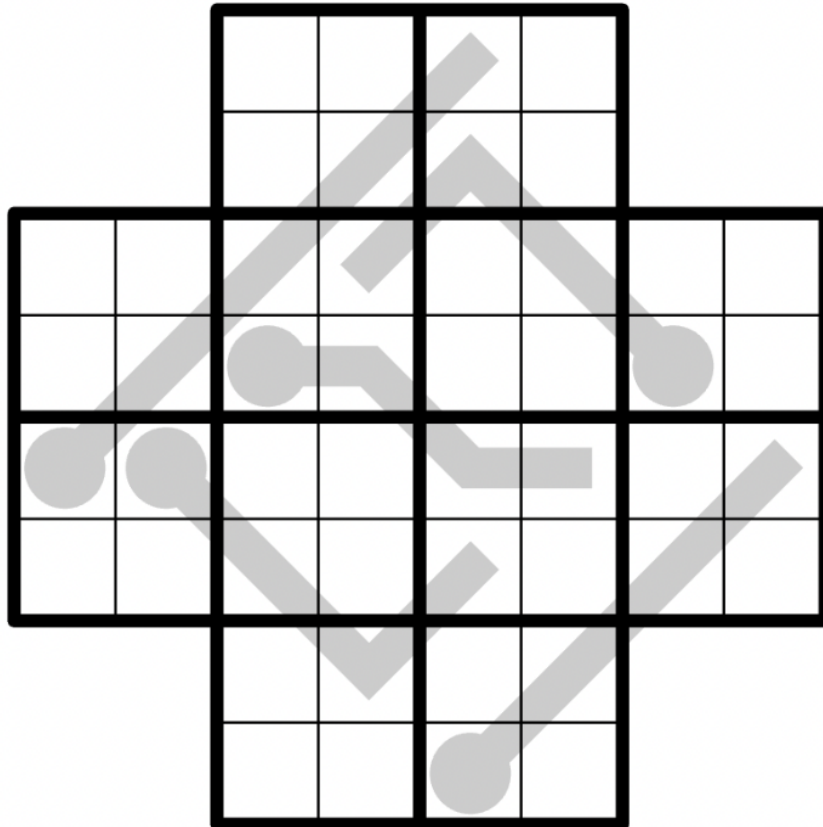


CtC: <https://tinyurl.com/j6pfp5rh>

Bonus 3: Slow Thermo Gattai

Bill Murphy

Normal 4x4 sudoku rules apply within each of the five overlapping 4x4 grids. Digits along “slow thermometers” must increase or stay the same (for instance, 1 1 3 3 4).



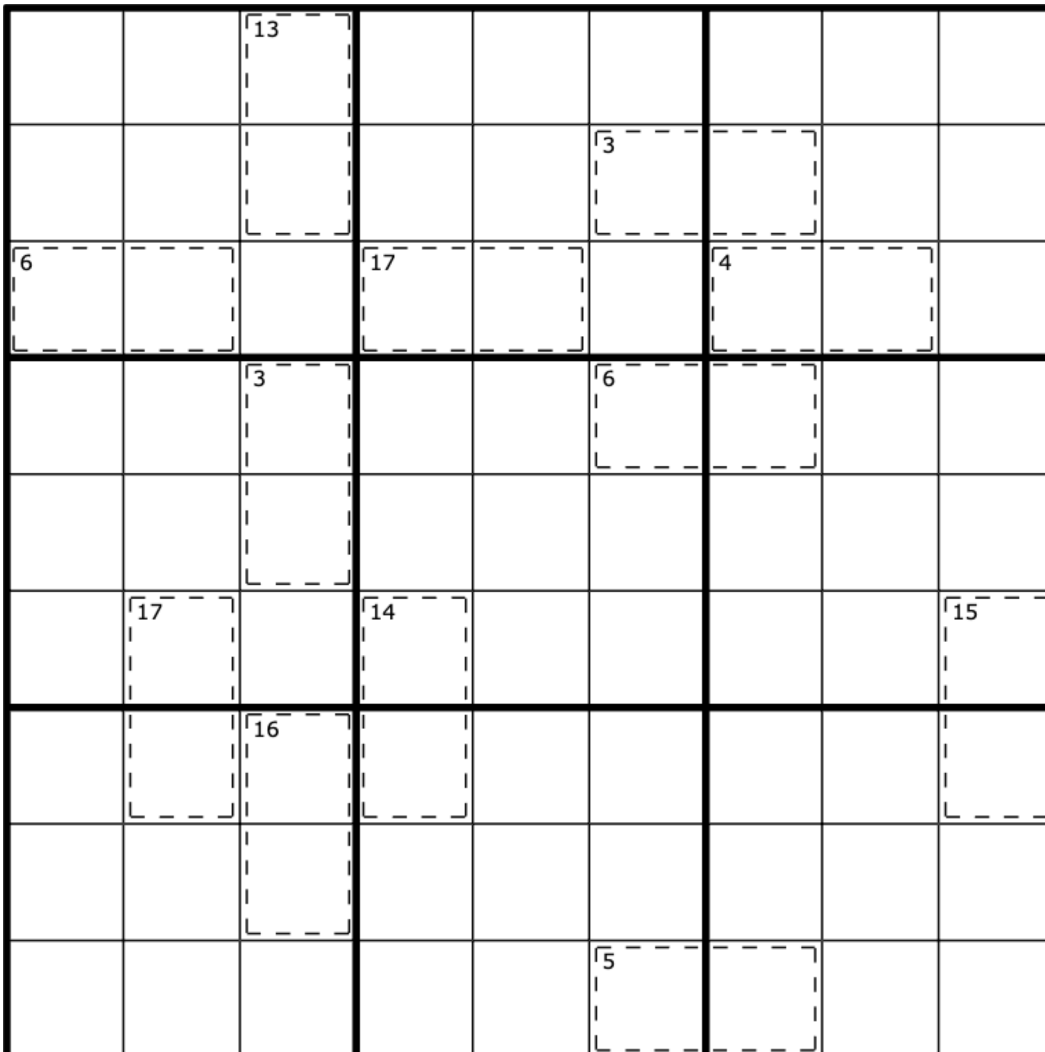
Penpa: <https://tinyurl.com/2pf7dcom>

CtC (warning: will not work on SudokuPad app on mobile!): <https://tinyurl.com/3j8z6vyc>

Bonus 4: Killer Sudoku

Philip Newman

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



f-puzzles: <https://f-puzzles.com/?id=2xp236tl>

CtC: <https://tinyurl.com/yc22sb94>

Bonus 5: Top to Bottom Sudoku

Clover

Normal sudoku rules apply. The grid contains two connected sequences of digits reading 123456789 in order (which may be connected orthogonally or diagonally). One of them goes from the 1 in the top row to the 9 in the bottom row; the other goes from the 1 in the bottom row to the 9 in the top row.

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

f-puzzles: <https://f-puzzles.com/?id=2q9cnrto>

CtC: <https://tinyurl.com/msb4z5cu>

Time Benchmarks

	Two party hats	One party hat	Today's dinosaur:
January 1, 2023	7:30	13:30	Blessed Byronosaurus
January 2, 2023	8:20	13:23	Lang Lavocatisaurus
January 3, 2023	7:00	13:00	fabulous fabrosaurus
January 4, 2023	7:00	14:00	New Year Nuthetes
January 5, 2023	7:30	15:00	Silliest Sibirotitan
January 6, 2023	7:30	14:00	apologetic apatosaurus
January 7, 2023	6:30	12:00	Heroic Hexing
January 8, 2023	8:30	16:00	Arrakeen Arackar
January 9, 2023	8:00	14:00	competitive kukufeldia
January 10, 2023	9:00	16:00	calm coelophysis
January 11, 2023	7:30	15:00	Frustrated Fukuititan
January 12, 2023	7:00	13:00	great genyodectes
January 13, 2023	6:30	11:00	Remembering Riojasaurus
January 14, 2023	7:00	13:00	Cool Cedarosaurus
January 15, 2023	6:00	12:00	fair fabrosaurus
January 16, 2023	8:00	12:30	Cramming Chirosstenotes
January 17, 2023	6:00	12:00	Repetitious Ruyangosaurus
January 18, 2023	7:00	13:00	ten-toed technosaurus
January 19, 2023	6:30	12:30	Learning Lessemsaurus
January 20, 2023	the average of V and X minutes	XV minutes	Mysterious Megacervixosaurus
January 21, 2023	6:00	11:00	hotly-contested homalocephale
January 22, 2023	8:00	1440:00	c'mon Chubutisaurus
January 23, 2023	1:00 per grid	3:00 per grid	Gattaitanic Gobititan
January 24, 2023	1:00 per grid	3:00 per grid	quintuplet qantassauruses
January 25, 2023	1:10 per grid	3:30 per grid	Sanguine Santanaraptor
January 26, 2023	1:00 per grid	2:30 per grid	Bonded Bonatitan

January 27, 2023	1:00 per grid	3:00 per grid	cognitive claosaurus
January 28, 2023	5:00	10:00	Supportive Stegosaurus
January 29, 2023	9:00	18:00	Chipper Chebsaurus
January 30, 2023	7:30	14:00	swashbuckling sphaerotholus
January 31, 2023			