

# **GAS Leak**

Genuinely Approachable Sudoku from the CtC Discord

Volume 15:

April 2022



Good morning, friends! This edition of GAS Leak compiles the daily GAS puzzles from April 2022, plus a handful of bonus puzzles that got left out in the rain and got a bit soggy. They're still good for solvin', though. This month we also celebrated a GAS milestone, with our 300th day of puzzles (and nearly 3,000 regular solvers). We've also learned a whole lot about Philip's ongoing attempts to install a security system at GAS Headquarters... and we also now know what happens when the GAPP team dares us to set their least favorite sudoku variant. As always, thank you for solving with us for another month!

The puzzles in this edition are reproduced with their original flavor text, except for the time benchmarks, which appear in a table on the last page of this document. Be warned: the first four puzzles in this edition came from our April Fools' Day celebration, and while I've done my best to explain what solvers saw when they were originally posted, you might need to check it out for yourself...

*Clover*

## April 1, 2022: April Fools' Celebration

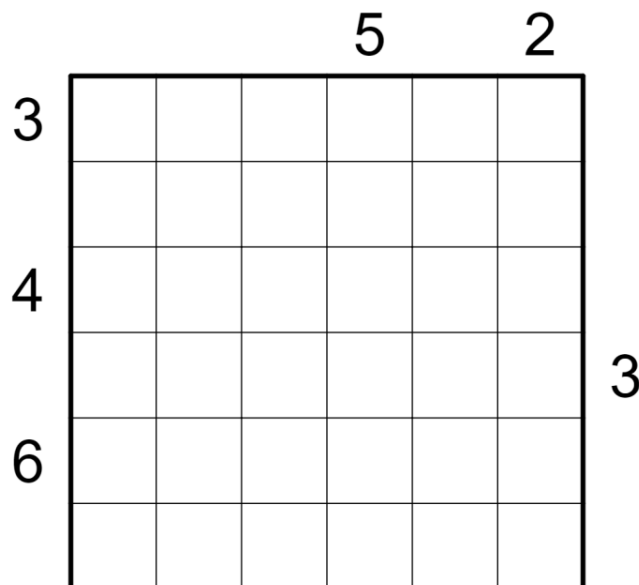
Editor's note: Okay, this one needs some explaining. For an April Fools' Day prank, we decided to post a series of puzzles that definitely weren't sudokus, while giving the rules as if they were perfectly ordinary sudoku variants. (Our colleagues over at GAPP, meanwhile, posted a lovely Classic Sudoku as their daily pencil puzzle - ahem, I mean a *9x9 Regional Latin Square*.) The rules of each puzzle from this day are complete and correct, although if you're familiar with these puzzle types, they might not look quite how you expect.

### Skyscrapers

Sam Cappleman-Lynes

Good morning, friends! Today's Genuinely Approachable Sudoku is a Skyscrapers.

Normal 6x6 Sudoku rules apply; however, there are no regions. Each number you place into the grid represents the height of a building. Clues outside the grid tell you how many buildings can be "seen" in the corresponding row or column when looking from that direction; taller buildings block the view of any smaller buildings behind them.



puzz.link - <https://puzz.link/p?skyscrapers/6/6/i5g2l3g4g6j3h>

Penpa - <https://tinyurl.com/y8k9hdlm>

## Kakuro

### Clover

I'm terribly sorry. Clearly we've made an egregious error in not providing you a genuinely approachable sudoku on this beautiful morning. I know it isn't my day to post, but somebody had to take some responsibility and step in to make things right 🙄 Luckily, I happened to have this spare sudoku that just went through testing, and I can assure you that it's both genuinely approachable and rather nicely made (if I dare say so myself). Please enjoy it along with my apologies! 🙄

Today's genuinely approachable sudoku is a kakuro! Normal sudoku rules apply; however, there are no 3x3 regions, and digits may repeat in a row or column only if they're separated by at least one gray square. Do not place digits in gray squares. The value in a gray square tells you the sum of all of the digits either to its right (if the value appears in the top right) or below it (if the value appears in the bottom left), up to the next gray square.

	11		8	10		29	12		13
10					30				
		9			14				
		8						8	
10			8				10		
			8				20		
10					13				
	26	10		26		12		12	13
10					30				
12			11				7		
			7				9		
		8			3				
30					22				

penpa: <https://tinyurl.com/ybntat35>

## Classic Sudoku?

Philip Newman

Editor's note: Philip led up to his April Fools' Day post with a series of increasingly more improbable excuses for why the sudoku was so late. When he finally posted that evening, *only* the nonogram was visible to solvers - accompanied by a spoiler-tagged image that, when clicked, showed a screenshot of the 'spoiled image' Discord attachment. For the purposes of GAS Leak, we've taken mercy and included links to the actual sudoku that solvers eventually discovered, for anybody who doesn't want to derive it.

Wait, *derive* it? Yup - the original links go to a very large nonogram puzzle. To solve a nonogram, shade some cells in the grid so that the values outside of the grid count the number of shaded cells in each continuous 'run', with each run being separated by at least one blank cell.

I am so sorry that I am posting this so late. I see my fellow setters had a bit of fun posting non-sudoku puzzles while I was working on this post, but it's time for the actual Genuinely Approachable Sudoku for today: a Classic Sudoku!

What took so long? I don't know if you have noticed, but while clover and Sam aren't so strict about this, I try to always give a never-before-used dinosaur. Further, I don't give you just any random new dino, I give you an actual 🦖 (or at least a close cousin in Sauropodomorpha).

The problem, of course, is that there are only so many 🦖s to offer, even including some of the dubious species. As I have posted more and more GAS puzzles, it has become more and more difficult to find a brand new one to use... culminating in today's 8 hour search for a 🦖!

Fortunately, my conversation with Riri led to a flash of insight while I was talking, and so I was finally able to find a new 🦖 to use! So, at long last... today's real, genuine, 100% authentic, Classic Sudoku. Normal sudoku rules apply. And that's it!

### Nonogram links:

Play on f-puzzles: <https://www.f-puzzles.com/?id=a4f1n0no>

Play on CTC App: <https://tinyurl.com/ytaa6e66>

*The actual sudoku, and online solving links for it, appear on the next page. Sadly, the original nonogram is too large to reproduce in this document!*

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

Play on f-puzzles: <https://f-puzzles.com/?id=y79hgvgbj>

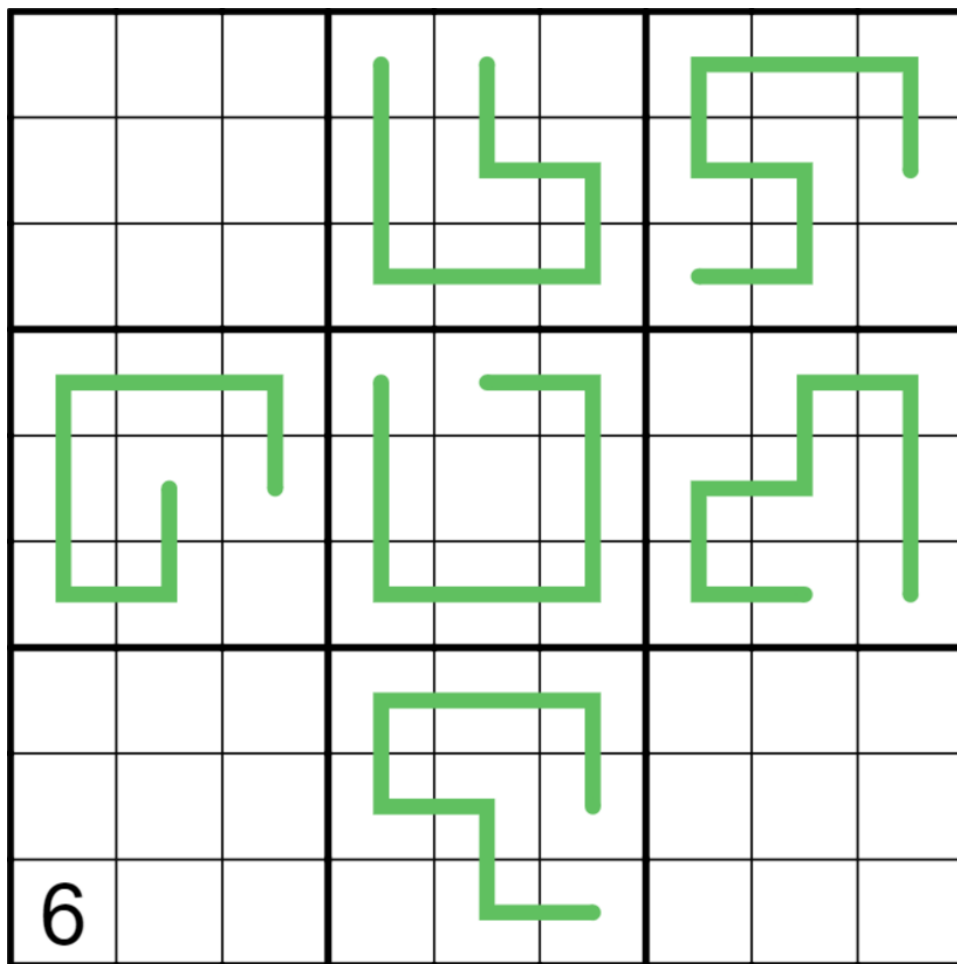
Play on CTC App: <https://tinyurl.com/3u8yvp3p>

## April 2, 2022: Opheodrys

Philip Newman

After Wednesday's puzzle, I know many of you must have been thinking "hey, that GAS, Inc. place isn't as secure as they think it is, maybe we should go spy on them even though Philip is such a swell guy and I wouldn't want to ever make him sad". Before you do, I should warn you that we have implemented additional security measures in the form of Six Sneks. I mean, they aren't venomous or anything, but they will definitely hiss quietly at you to scare you off. I wouldn't mess with them.

Today's GAS is a German Whispers Sudoku! Normal sudoku rules apply. Digits in cells directly connected by a green line must differ by at least 5.



Play on f-puzzles: <https://f-puzzles.com/?id=yhoc59v>

(grey lines: <https://f-puzzles.com/?id=y9n9lkvt> )

Play on CTC App: <https://tinyurl.com/4wsut7nd>

(grey lines: <https://tinyurl.com/232556dd> )

## Clover

Today's GAS is a region sum lines sudoku! Normal sudoku rules apply. Also, there are some lines in the grid, and each line passes through more than one of the 3x3 regions. Along each line, the digits in every region it passes through have the same sum. For instance,  $r3c2 + r3c3 = r3c4 + r3c5$ .

[illegible]

CtC: <https://tinyurl.com/35e4j9n6>

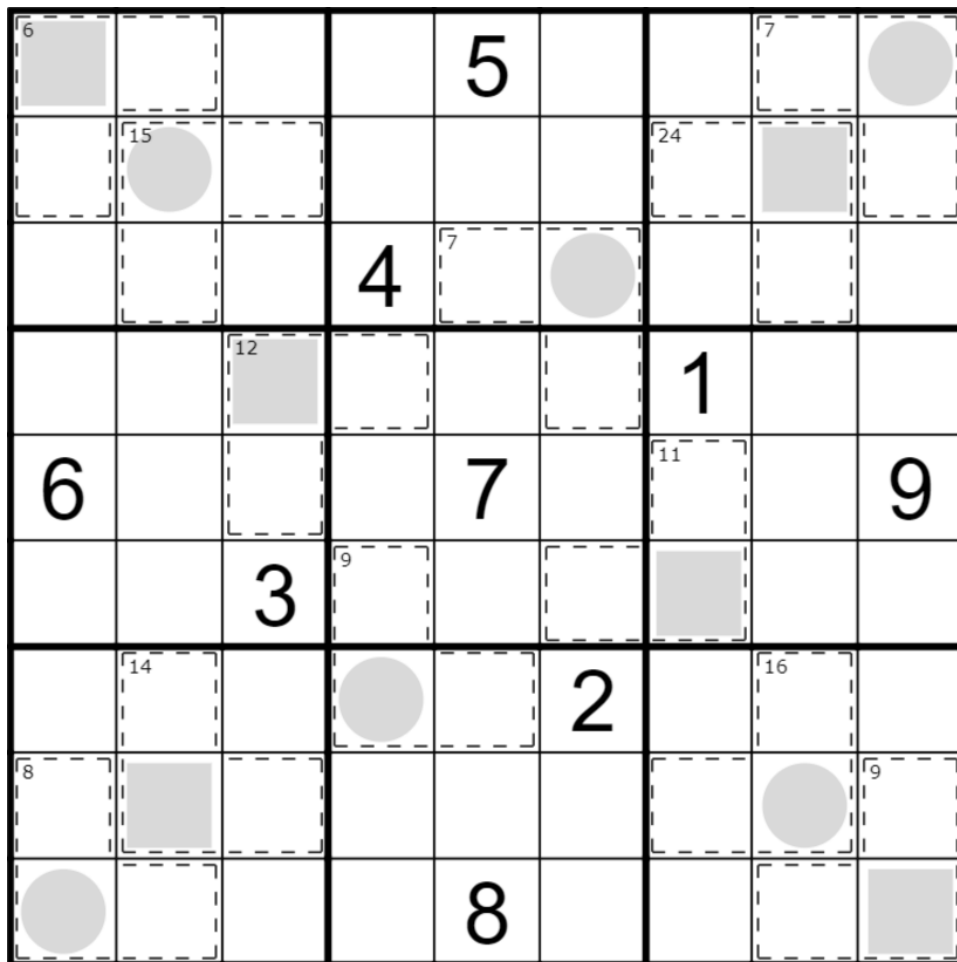


## April 4, 2022: Odd/Even Killer

Sam Cappleman-Lynes

Good afternoon! I gave this puzzle to somebody earlier, but they must have taken my instruction to "put the numbers from 1 to 9 into the grid" a little bit too literally. Can you help them out and place the rest of the numbers for them?

Today's GAS is an Odd/Even Killer Sudoku. Normal Sudoku rules apply. Numbers in a dashed cage must not repeat and must add up to the total in the corner of the cage. Additionally, numbers in a grey circle must be odd and numbers in a grey square must be even.



f-puzzles - <https://f-puzzles.com/?id=yc9v7yvj>

CtC - <https://tinyurl.com/mv32hbkf>

## April 5, 2022: Windoku of Opportunity

Philip Newman

Alright, we need to have a talk. I get that some of you thought our snek-based security system was more "cute" than "scary", and that our cage of cages vault looks totally heistable. But to whoever tried to literally break into GAS, Inc. headquarters by throwing digits at our windows:

- A** These windows are dinosaur-proof, you think they can't handle a 7 hurled at them?
- B** Why did you use such sticky digits? Come clean up after yourselves, you hooligans!

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.

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

Play on f-puzzles: <https://f-puzzles.com/?id=ybz5ny9b>

Play on CTC App: <https://tinyurl.com/2jx4mccy>

## April 6, 2022: Multiples of 3

Clover

I've lost my keys to GAS headquarters! 😭 I thought Philip might come open the door if I threw some 7s at his office window, but he wasn't paying attention 😭 And when I tried to get the spare key out of the mailbox, it was full of snakes instead of mail 😭 My last idea is to try to guess the passcode to the back door... all I know is that it's a multiple of 3, so it must be embedded in this sudoku somewhere, right?

Today's GAS is a multiples of 3 sudoku! Normal sudoku rules apply. Also, within each of the 3x3 regions, every run of 3 vertically adjacent or 3 horizontally adjacent cells must sum to a multiple of 3. For instance, r2c123 must sum to a multiple of 3, r456c6 must sum to a multiple of 3, and so on.

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

f-puzzles: <https://f-puzzles.com/?id=y8y9452h>

CtC: <https://tinyurl.com/3mf9udfu>

**April 7, 2022: Odd/Even**

Sam Cappleman-Lynes

Today's GAS is an Odd/Even Sudoku. After the controversy over my last puzzle about whether the convention for circles and squares is the right way round or not, you'll be pleased to hear that I've made absolutely no effort to change it and am embracing the status quo 😎

In this puzzle, normal Sudoku rules apply. Numbers in grey circles must be odd, and numbers in grey squares must be even. If you don't like it, tough 😞

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

f-puzzles - <https://f-puzzles.com/?id=y84539a7>

CtC - <https://tinyurl.com/k8uh2c6h>

## **April 8, 2022: Secure Perimeter**

Philip Newman

We may have resolved the mystery of the flung digits - sorry about locking you out, Clover - but I am still paranoid about all our other secrets being stolen.

Therefore, I have taken the step of hiring the outside firm Guard-it All Security, Inc. to completely lock down our GAS campus. They have posted sentries all around the perimeter with deadly watch over our corner entrances, and if you somehow managed to avoid those you would run straight into a wall of digits trying to figure out the secrets of the central cell.

*Guard-it All Security*

*Guardin' problems?*

*Nip it in the bud with Guard-it All.*

*Don't lose your gourd - Call Guard-it All.*

*Reap what you sow - security, with Guard-it All.*

*Turn over a new leaf with Guard-it All.*

*Don't settle for garden variety security. Use Guard-it All.*

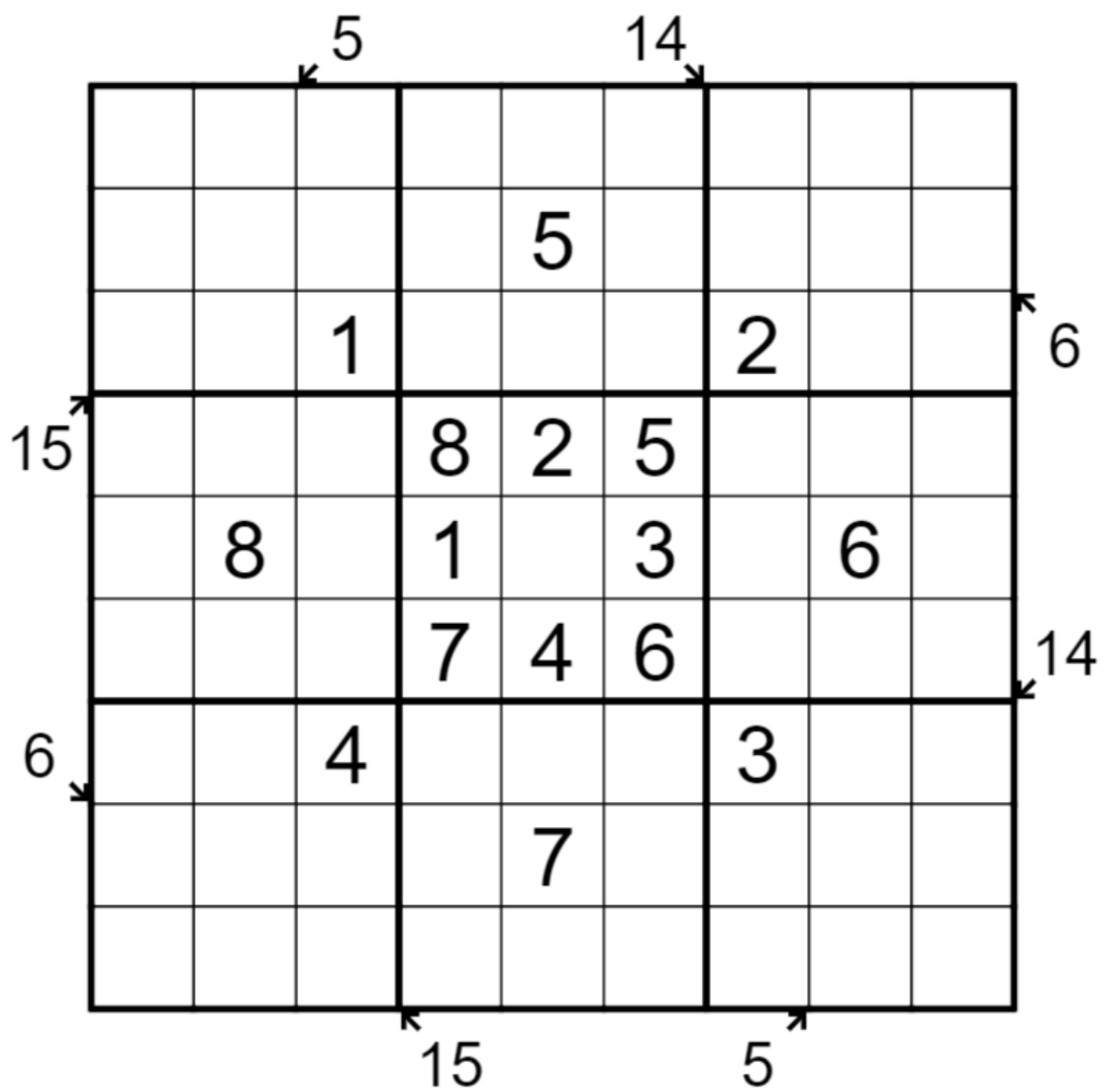
*Guard-it All. Because you're worth it.*

Today's GAS is a Little Killer Sudoku!

Normal sudoku rules apply. Digits along the indicated diagonals must sum to the total given (digits may repeat if allowed by other rules).

GAS 101 Note: If you feel stuck in box 7 at some point, here's a hint - the 15 sum doesn't seem all that restricted, but it is actually forced once you have the 6 sum resolved!

*The puzzle and solving links appear on the next page.*



Play on f-puzzles: <https://f-puzzles.com/?id=yddmj362>

Play on CTC App: <https://tinyurl.com/3ppuhk4p>

## April 9, 2022: Touchy Sudoku

Clover

*touch da sudoku* 🐱

NO TOUCHY SUDOKU.

*I'm just gonna touch da sudoku though?* 🐱

**NO TOUCHY SUDOKU!**

*okay, how bout I just smell the sudoku?* 🐱

Today's GAS is a touchy sudoku! Normal sudoku rules apply. Also, every digit must orthogonally touch at least one consecutive digit (for instance, every 1 must be next to at least one 2, and every 4 must be next to at least one 3 and/or 5.) *Solving tip:* we recommend using coloring to track which cells you've already found a "touching" partner for, so you know which ones you still need to deal with!

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

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

CtC: <https://tinyurl.com/4d5wp4eb>

## April 10, 2022: Diagonal Sudoku

Sam Cappleman-Lynes

I am sick and tired of hearing about rows and columns, regimented, perfectly in line, rigidly orthogonal. I want freedom from the horizontal and vertical! Whatever happened to thinking outside the box\*?

Today's GAS is a Diagonal Sudoku. Normal Sudoku rules apply, and each marked diagonal must contain each digit exactly once.

\* Technically speaking, everything in this puzzle is still firmly *within* a box.

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

f-puzzles - <https://f-puzzles.com/?id=ya5tmmrr>

CtC - <https://tinyurl.com/4jxdcmeH>



## Philip Newman

In lieu of a 24/7 active presence patrolling the grid, I have devised a completely secure vault. I don't care if you know what digit is in the center, you can't get to that 5. Bwahahaha. Using the latest in Between Line technology, this vault is impenetrable... unless you are some sort of genius who can figure out what numbers lie between other numbers.

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

## April 12, 2022: David & Goliath

Clover

Sudoku solving has its ups and downs, doesn't it? Sometimes you're the dog, sometimes you're the hydrant. Sometimes you're the bug, sometimes you're the windshield. Sometimes you're the 7-foot-tall Philistine, and sometimes you're the little dude with the slingshot. That's the story in today's GAS, a David and Goliath Sudoku!

Normal sudoku rules apply. Also, each cage must contain one small digit and one large digit. The "small" digit can be 1, 2, 3, 4, or 5, and the "large" digit can be 5, 6, 7, 8, or 9. (For instance, valid cages could include 2/5, 4/9, or 5/8. Cages like 2/3 or 7/9 are not allowed.)

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

f-puzzles: <https://f-puzzles.com/?id=y7mqbsgx>

CtC: <https://tinyurl.com/2p8fjzrm>

## April 13, 2022: Classic Sudoku

Sam Cappleman-Lynes

Today's GAS is a Classic Sudoku!

Open either of today's puzzle links to be taken to a nonogram. The solution to the nonogram puzzle will reveal a Sudoku, which you should then solve.

Only kidding. This isn't April 1st. But if you do want more nonograms to solve, why not petition the good folk over at [#daily-pencil-puzzle-discussion](#)?

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

f-puzzles - <https://f-puzzles.com/?id=yy9ma7bz>

CtC - <https://tinyurl.com/4btvn4hr>

Nonogram - <https://f-puzzles.com/?id=5t4zhwed>

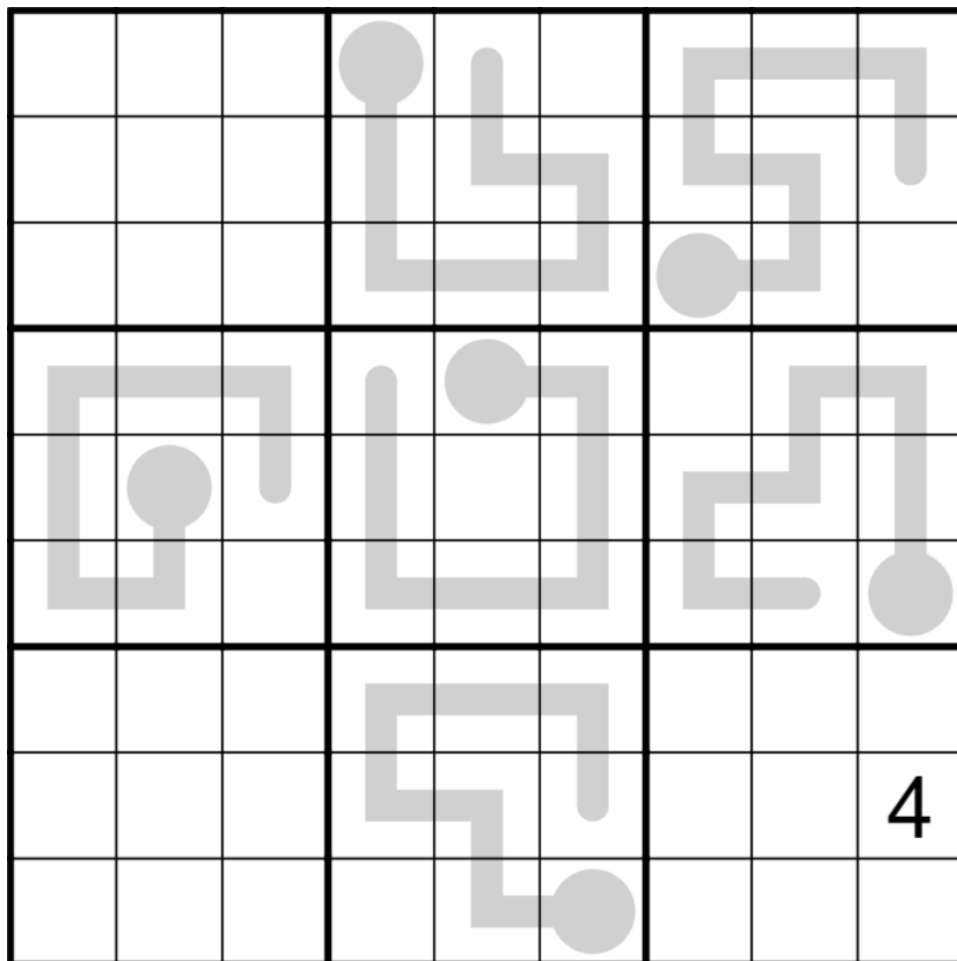
**April 14, 2022: Crotalus**

Philip Newman

I feel like we were on to something with the sneks a couple weeks ago, but you know the problem with sneks? They are cold-blooded!

Introducing the Thermosnek (TM) line of security sensors. Each Thermosnek is carefully calibrated to detect the slightest changes in temperature - say from some nefarious Daily Sudoku Snatcher - and turn on the air conditioning accordingly, immediately alerting GAS, Inc. CEO (Chief Exothermic Officer) Clover to lock down the vault by wrapping it in a blankie.

Today's GAS is a Thermo Sudoku! Normal sudoku rules apply. Digits along thermometers must strictly increase (not necessarily consecutively) from bulb to tip.



Play on f-puzzles: <https://f-puzzles.com/?id=yy4e6xf6>

Play on CTC App: <https://tinyurl.com/2s3wyuw8>

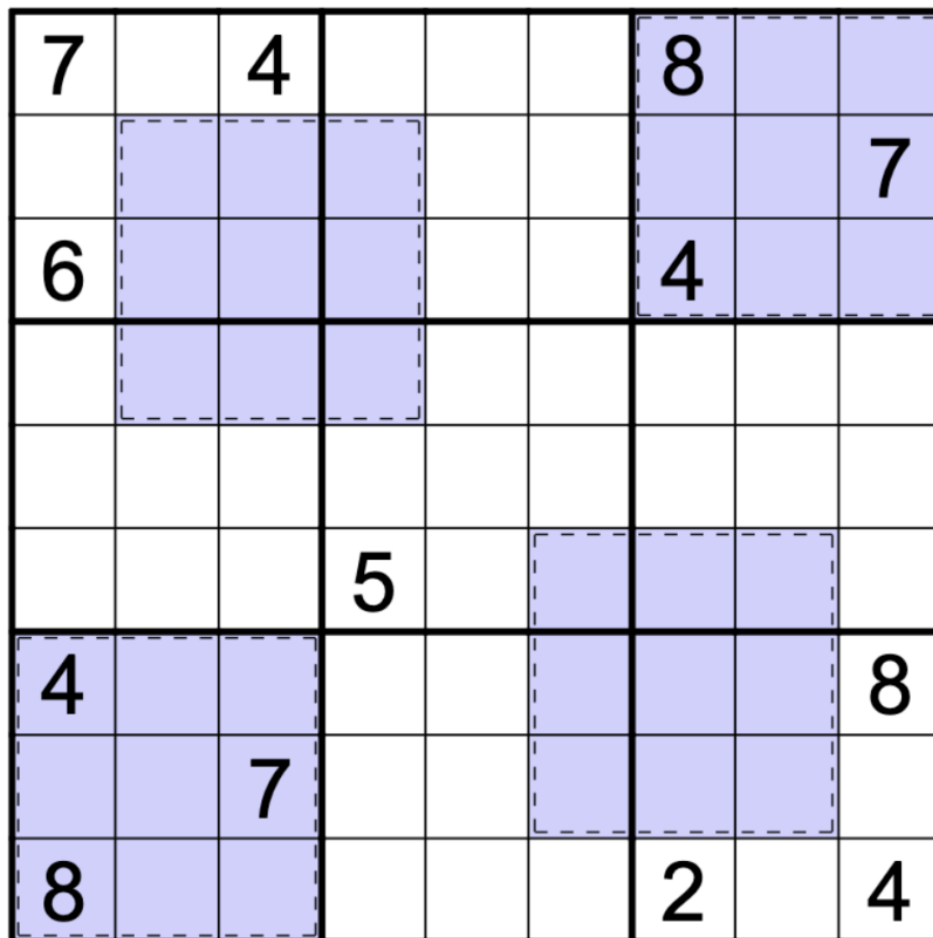
## April 15, 2022: Magic Squares

Clover

Editor's note: Remember how a few days back, Sam recommended that our solvers go ask the GAPP team for more nonograms? Well, those mad lads went and did it, and they got their nonogram from Jovi... who promptly sent them back to us, asking for magic square sudokus!

Dear Jovi and the several other GAPP enthusiasts who mysteriously all requested this variant on the same day: *Don't let your memes be dreams.* ✨ sincerely yours, clover!

Today's GAS is a magic square sudoku! Normal sudoku rules apply. Also, every blue region is a 3x3 magic square. A 3x3 magic square contains the digits 1 through 9 once each, and every row, column, and diagonal within the square sums to 15.



f-puzzles: <https://f-puzzles.com/?id=y6cxau4g>

CtC: <https://tinyurl.com/2p8ufymn>

## April 16, 2022: More Magic

Sam Cappleman-Lynes

I hope you were paying attention in class yesterday, because today's puzzle will test what you learned about magic squares. In today's Magic Square Sudoku, normal Sudoku rules apply. In addition, each of the three blue areas must form a magic square, meaning that its three rows, three columns and two diagonals must all add up to 15.

Tip #1: Clover dropped some hints yesterday that you should remember what your magic squares looked like. That's because there is, in fact, only one way to make a magic square, up to rotation and reflection.

Tip #2: If, like me, you remember that there is only one way to make a magic square but are forgetful of the details, it's helpful to remember that 5 goes in the centre and that the four even numbers go in the corners, while the other four odd numbers go on the sides.

			8					
							1	
					5			2
								4
5								
6			5					
	8							
					3			

f-puzzles - <https://f-puzzles.com/?id=y28hom23>

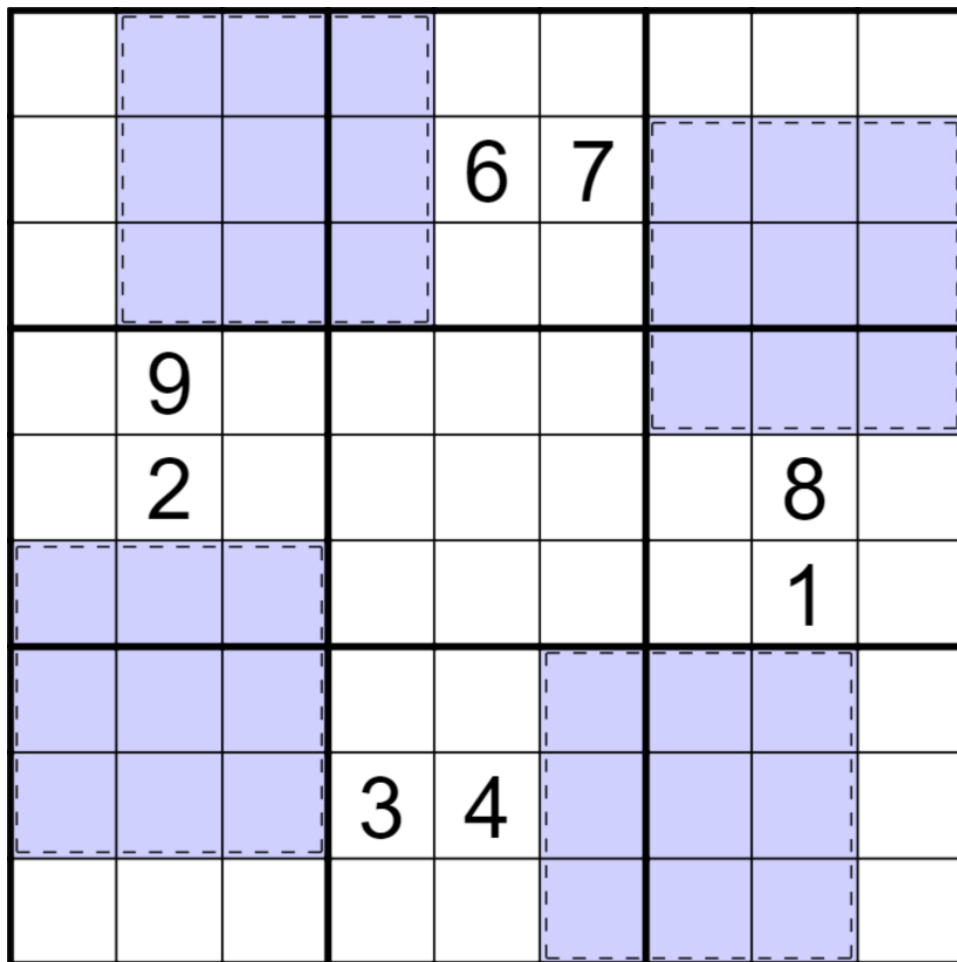
CtC - <https://tinyurl.com/2p9crkbt>

## April 17, 2022: Even More Magic

Philip Newman

Sometimes my brilliant security ideas fail and it's entirely my fault. But not today. Today's design was going to be completely uncrackable... and then Clover and Sam went and invited everyone to study the secrets of the magic square. Bah!

You know what else is magic? Me posting so early. (If by magic we mean "the kids woke me up way too early".) Today's GAS is another Magic Square Sudoku! Normal sudoku rules apply. Also, every blue region is a 3x3 magic square. A 3x3 magic square contains the digits 1 through 9 once each, and every row, column, and diagonal within the square sums to 15.



Play on f-puzzles: <https://f-puzzles.com/?id=yxu86wt5>

Play on CTC App: <https://tinyurl.com/2p93mftb>

## April 18, 2022: Median Sudoku

Clover

In last week's David & Goliath sudoku, we celebrated big numbers and small numbers. But the true unsung heroes of sudoku are the medium-sized numbers. Let's take a moment to appreciate numbers that aren't too big and aren't too small - they're just right.



Today's GAS is a median sudoku! Normal sudoku rules apply. Also, digits may not repeat in a cage. In each cage, the indicated value is the median (middle) value in that cage. (This digit can go anywhere in the cage - it's the value that matters!)

For instance, a cage containing the digits 2, 7, and 8 would be marked with a "7", and a cage containing the digits 1, 5, and 7 would be marked with a "5".

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

f-puzzles: <https://f-puzzles.com/?id=y396mvu9>

CtC: <https://tinyurl.com/5xeheesp7>

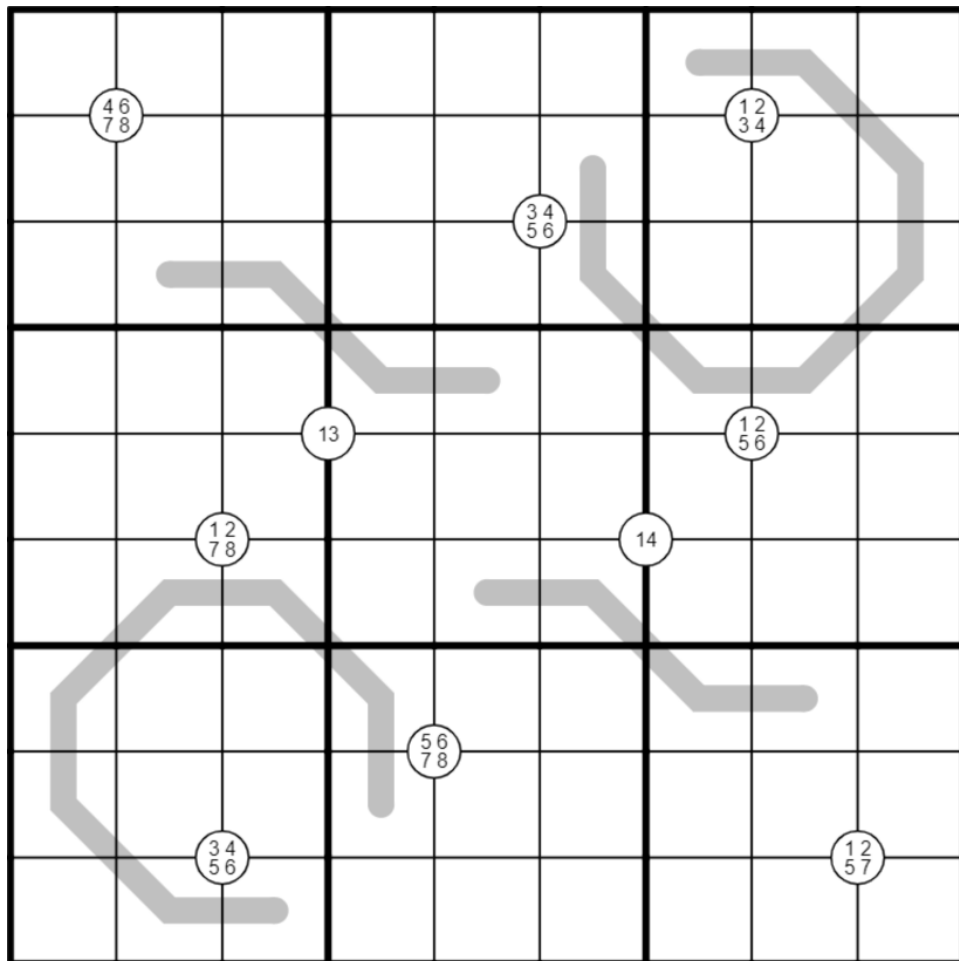


## April 19, 2022: Palindrome Quads

Sam Cappleman-Lynes

Today's GAS is a Palindrome Quads Sudoku.

Normal Sudoku rules apply. Numbers on a grey line must form a palindromic sequence - they must read the same in both directions. Numbers in a white circle must appear somewhere in the four cells around the circle.



f-puzzles - <https://f-puzzles.com/?id=y3dmaeze>

CtC - <https://tinyurl.com/2b96sjwv>

## April 20, 2022: Cross Hares

Philip Newman

Hopefully you are all too busy celebrating 4/20 to even consider trying to break into GAS, Inc. headquarters today. After all, I wouldn't want anyone to get hurt by my latest diabolical security system.

Easter was a few days ago, and I have harnessed the power of the fiercest, most dangerous, cuddliest bunnies to protect the center of our compound. Whatever you do, do not open their cages! GAS, Inc. is not responsible for any injury or breeding which may occur.

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

		16	15		11			
			9		17			
17	11	10		12	11		16	
							14	8
5	11	11			6			
		29		7	30		5	9
4								
		7		9		4		
		3		9				

Play on f-puzzles: <https://f-puzzles.com/?id=y542x63a>

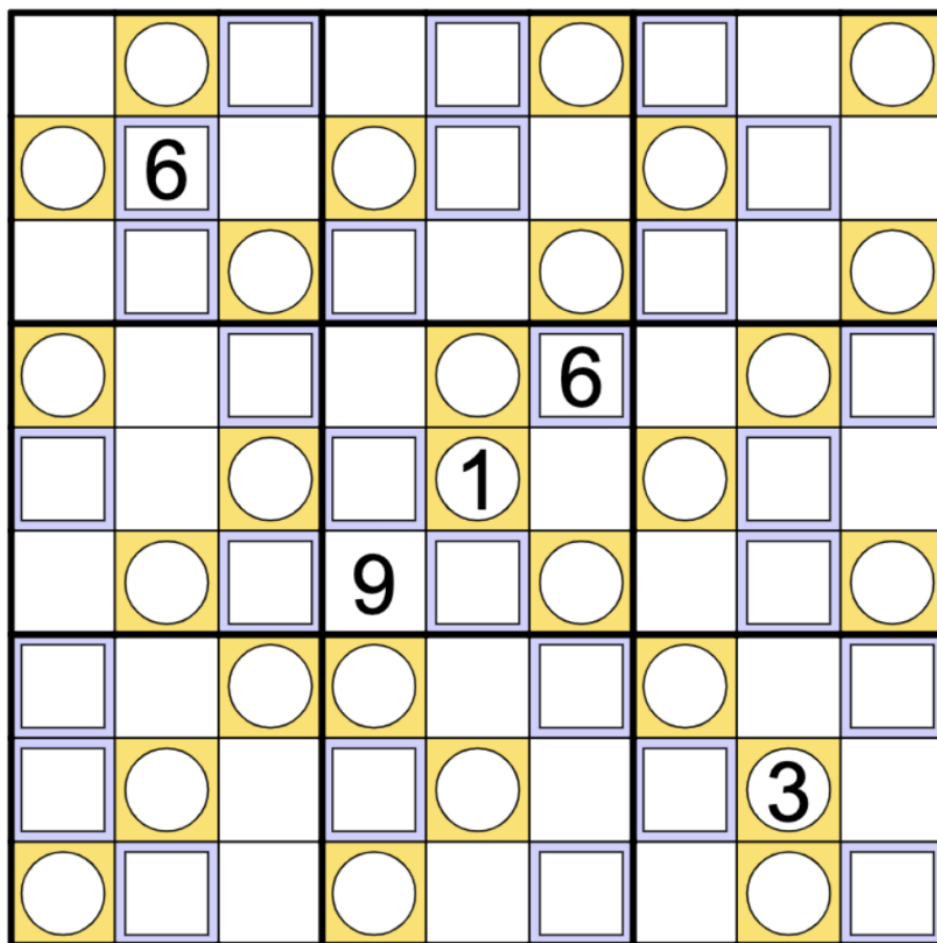
Play on CTC App: <https://tinyurl.com/2p8mrpa>

## April 21, 2022: Nonconsecutive Trio

Clover

Today's GAS is a nonconsecutive trio sudoku, named after the infamous classical-era Italian sudoku setter Giuseppe Triosuddochio, who pioneered this variant in 1743 to justify his strange distaste for standing directly next to anybody within 1cm of his own height.

Normal sudoku rules apply. Also, consecutive digits must never be orthogonally adjacent. The digits 1, 2, and 3 are marked with orange circles; the digits 4, 5, and 6 are marked with blue squares.



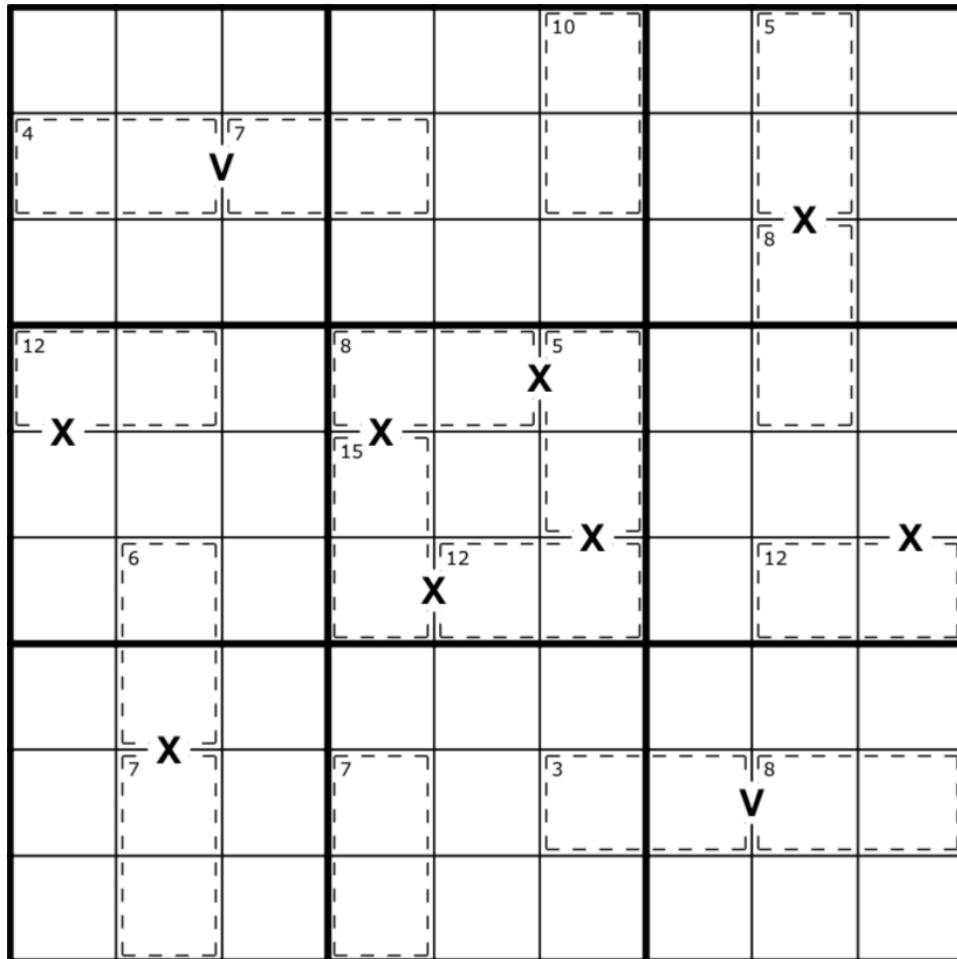
f-puzzles: <https://f-puzzles.com/?id=y5k48drh>

CtC: <https://tinyurl.com/muksw5dj>

## April 22, 2022: XV Killer

Sam Cappleman-Lynes

Today's GAS is an XV Killer Sudoku! In this puzzle, as well as normal Sudoku rules, numbers in a cage must add up to the indicated total. Additionally, numbers separated by a V must add up to 5 and numbers separated by an X must add up to 10. Not all X's and V's are necessarily given!



f-puzzles - <https://tinyurl.com/469w2y8c>

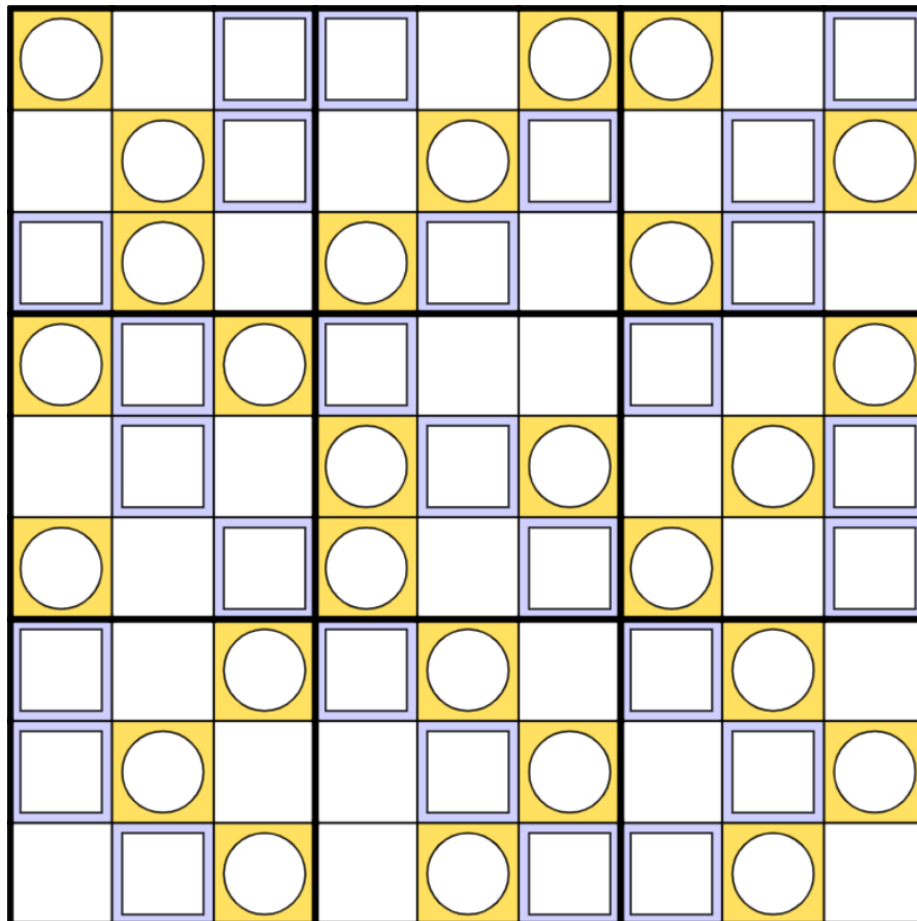
CtC - <https://tinyurl.com/2p926emc>

## April 23, 2022: Ocean's Trio

Philip Newman

We've had a serious security breach. Someone has discovered the GAS, Inc. safe, which was hidden behind an infamous painting by infamous classical-era Italian sudoku setter Giuseppe Triosuddochio. It seems they have also stolen the painting, and attempted to cover their tracks by replacing it with a forgery. But Clover noticed immediately that it was missing the numbers that were the hallmark of an authentic Triosuddochio work, and that she used as a reminder for the security code of the safe, 12345, which are also numbers. I mean, the forgery still looks solvable, so I guess have fun with that while we change all our codes and lock everything down.

Today's GAS is a Nonconsecutive Trio Sudoku. Normal sudoku rules apply. Also, consecutive digits must never be orthogonally adjacent. The digits 1, 2, and 3 are marked with orange circles; the digits 4, 5, and 6 are marked with blue squares.



Play on f-puzzles: <https://f-puzzles.com/?id=y6huvhts>

Play on CTC App: <https://tinyurl.com/4uhc2yr4>

## April 24, 2022: Sum Frame Sudoku

Clover

Today's GAS is a sum frame sudoku! Normal sudoku rules apply. Also, a value outside of the grid gives the sum of the first three digits from that direction (closest to the clue) in that row or column. For instance, because a "22" clue appears to the right of row 7, the sum of the digits in row 7, columns 7/8/9 must be 22.

			15			23	15	7	
6			2	8			9		
15									
24	8								1
									5
15	9								
	3								6
			7			6	4		
	9	15	21			10			

f-puzzles: <https://f-puzzles.com/?id=y2qhvvd6>

CtC: <https://tinyurl.com/k6dh9vzk>

## April 25, 2022: Rossini

Forget Giuseppe Triosuddochio, the real Italian Sudoku pioneer is, of course, Gioachino Rossini, who was famed for his unparalleled Sudoku-setting speed. Rumour has it that at an early precursor to the World Sudoku Championship, he produced the puzzles for the final round while the finalists were solving!

In honour of him, today's GAS is a Rossini Sudoku. Normal Sudoku rules apply, and, if an arrow is given outside the grid, then the three cells nearest the arrow in that row or column increase in the direction of the arrow. All possible arrows are given! **This means that where no arrow is shown, the three digits neither increase nor decrease. For example, there is no arrow to the left of row 4, so the first three digits in row 4 are in neither increasing nor decreasing order.**

Editor's note: yes, there are no arrows in this puzzle! That means the negative constraint applies to all rows and columns.

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

f-puzzles - <https://tinyurl.com/y9hk2f7f>

CtC - <https://tinyurl.com/52264n43>

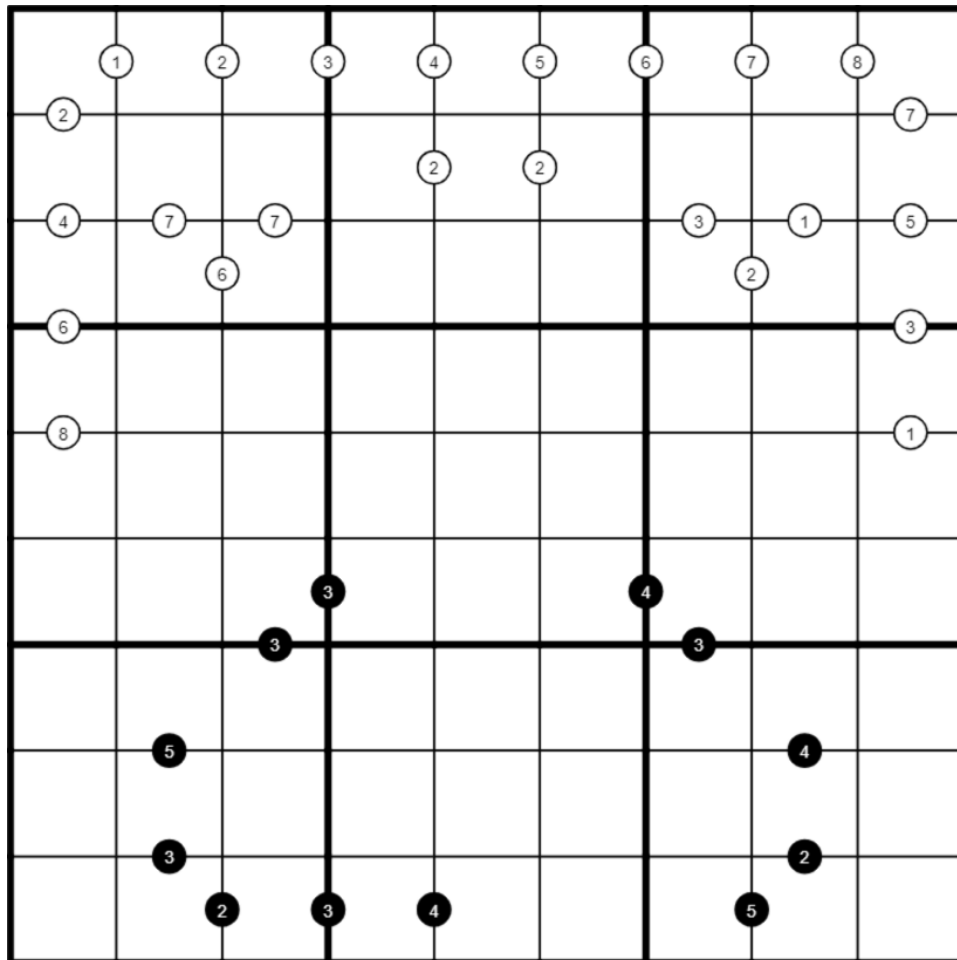
## April 26, 2022: Guard Dog

Philip Newman

Having grown to distrust such security measures as paintings and snakes, I have decided to enlist a new member of the GAS, Inc. security team: a guard dog. His name is Giancarlo Espawcito, and don't let the sleepy white dots of his eyes fool you. It would be a doggone shame if you didn't let this sleeping dog lie. He's meaner than a junkyard dog. Why, one time he got on twitter, and... well, just look at those ratios. You can't teach an old dog new tricks, but this is a new dog so, hot dog, he knows all the tricks.

You'll never be able to find my latest top secret GAS homework. He ate it.

Today's GAS is a Difference/Ratio Sudoku! Normal sudoku rules apply. Digits in cells separated by a black dot must have the ratio given; digits in cells separated by a white dot must have the difference given.



Play at f-puzzles: <https://f-puzzles.com/?id=y6ppamjj>

Play at CTC App: <https://tinyurl.com/mtfvuc8c>



## Clover

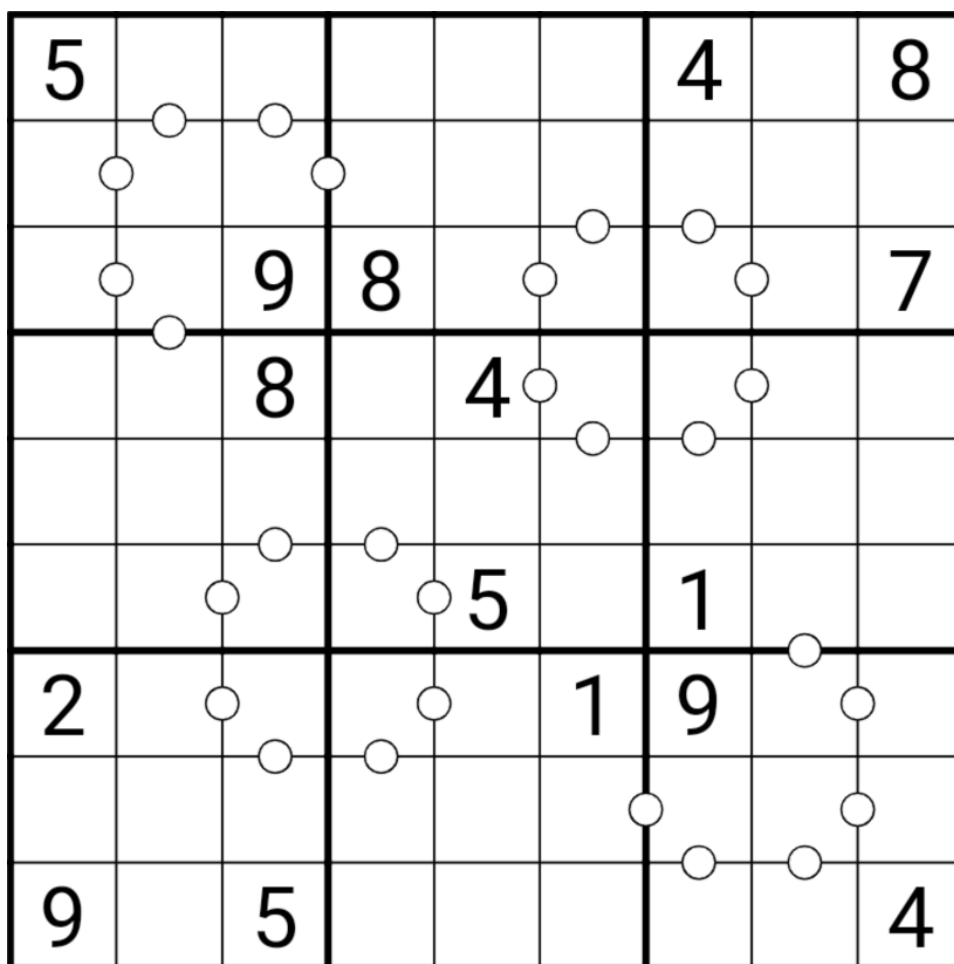
Today's GAS has been carefully crafted to cause the maximum possible amount of confusion and distress to anybody who doesn't read the intro first. If you already opened it, had your brain do a bluescreen at the sight of a 3-length "3" arrow, and now you're reading the rules for the first time, hi! I hope you're having a nice day. Read onwards! 😊

CtC: <https://tinyurl.com/2p92bcah>

## April 28, 2022: Consecutive Pairs

Sam Cappleman-Lynes

Today's GAS is a Consecutive Pairs Sudoku. In this puzzle, normal Sudoku rules apply, and numbers separated by a white dot must be consecutive. Not all dots are given.



f-puzzles - <https://f-puzzles.com/?id=y6938lql>

CtC - <https://tinyurl.com/yc7mc5m8>

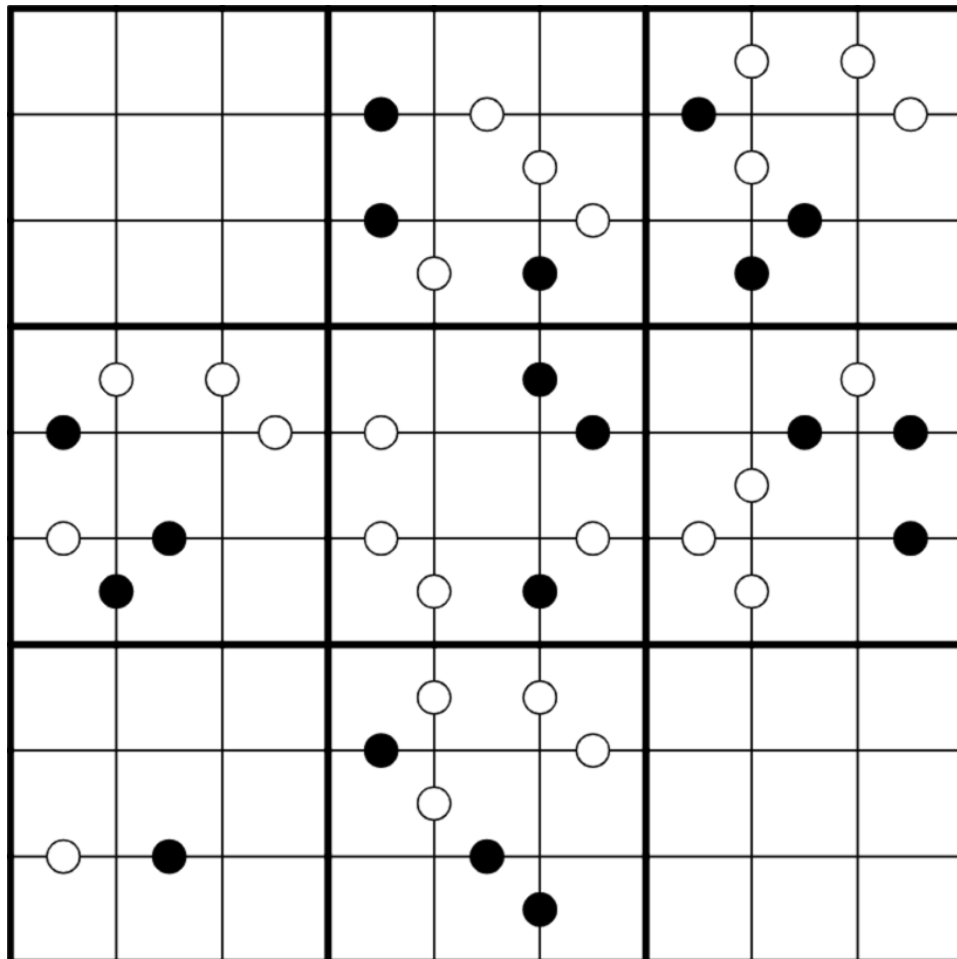
**April 29, 2022: Lampropeltis holbrooki**

Philip Newman

Giancarlo Espawcito is such a good doggo that we asked our security supplier to find a similar solution for the lawn. I think they completely misunderstood, because this does not look like a dog at all. It does look familiar somehow, though...

Today's GAS is a Kropki Pairs Sudoku!

Normal sudoku rules apply. 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=y5zw3y6t>

Play on CTC App: <https://tinyurl.com/3crsw4hp>

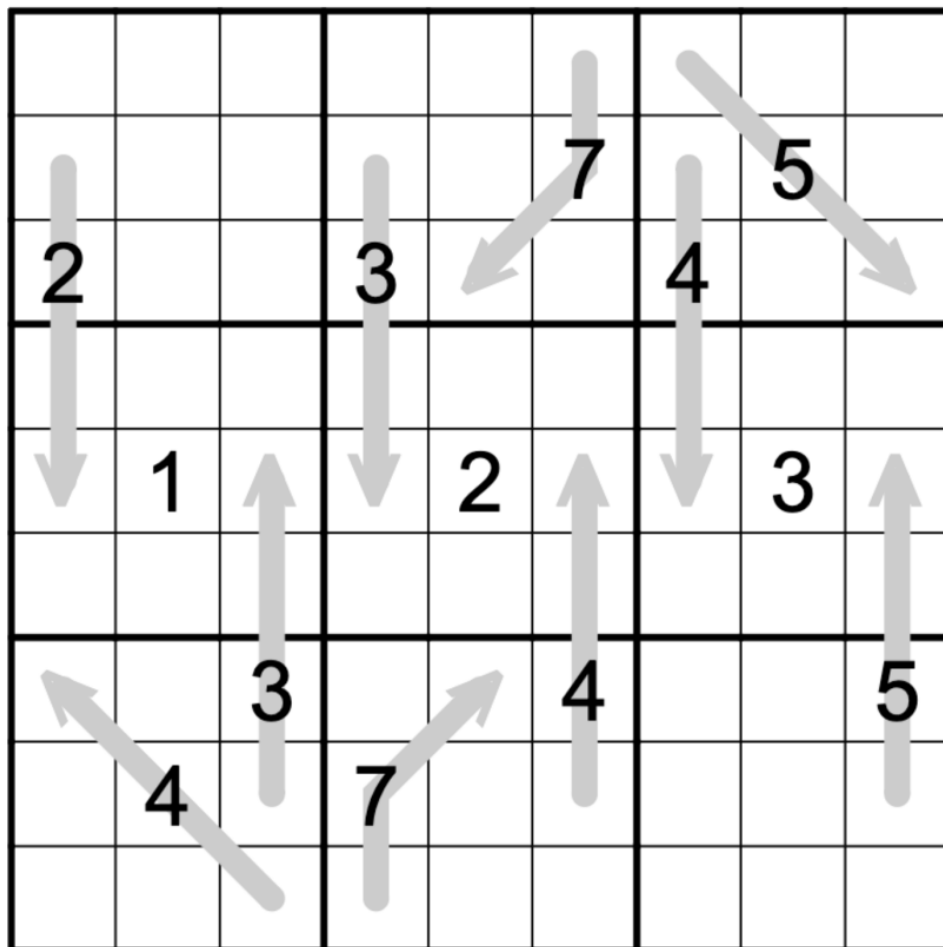
## April 30, 2022: Sequence Sudoku

Clover

Some of you have been around here for long enough to remember the Gippsland Earthworm Incident. Today I'd like to introduce you to a somewhat smaller but decidedly slimier friend: the hammerhead worm, a species of land planarian known for its distinctive arrow-shaped head. You always know exactly which direction he's pointing, even if he doesn't!

Anyways, today's GAS is full of hammerhead worms! Goodness! Also, it's a sequence sudoku. Normal sudoku rules apply. Also, digits along each line must form an evenly spaced sequence, like 2 4 6 or 3 6 9. Each sequence increases in the direction the arrow is pointing.

Oh, and I almost forgot to mention: the worms are carnivorous. And they produce a rare neurotoxin. Happy solving!



f-puzzles: <https://f-puzzles.com/?id=y3hrhj8v>

CtC: <https://tinyurl.com/2p9x34n9>

### Bonus 1: Linked 6x6es

Sam Cappleman-Lynes

Normal 6x6 sudoku rules apply for each grid. Numbers in the same place in the two grids must be different.

		1			
			2		
6				3	
	5				4
		4			
			3		

			2		
		3			
	5				4
4				1	
			3		
		2			

Penpa: <https://tinyurl.com/y4ux3r6o>

## Bonus 2: Prime Rib Sammies

Philip Newman

Normal sudoku rules apply. 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.

	2		3			5		7		11	
13									9		
								8			20
17							6				
											10
19		7				5			3		
											12
23					4						
				2							6
29		1									

f-puzzles: <https://f-puzzles.com/?id=y3ur5vuw>

CtC: <https://tinyurl.com/2p93bn8s>

### Bonus 3: Sum Sum Sudoku

Clover

Normal sudoku rules apply. Also, the leftmost two digits of each row have the same sum as the bottom two digits of the corresponding column (for instance, the leftmost two digits in the third row have the same sum as the bottom two digits in the third column.)

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

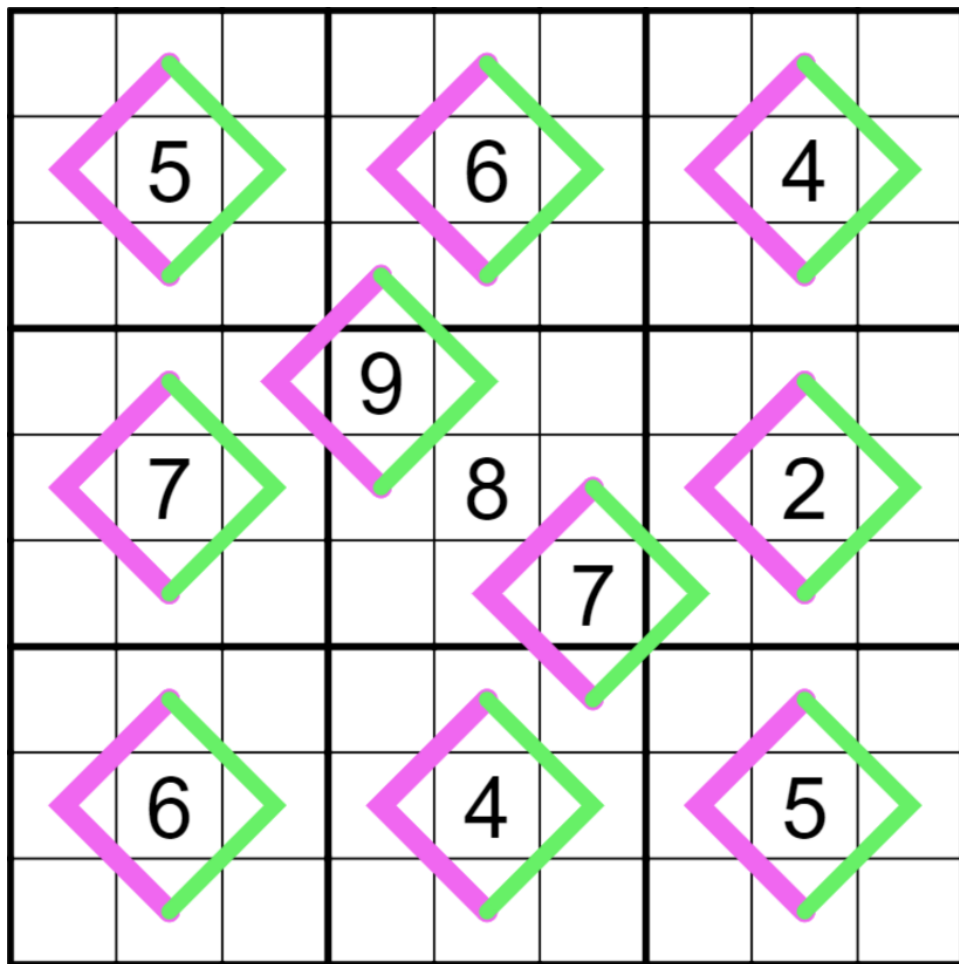
f-puzzles: <https://f-puzzles.com/?id=y32bxfcj>

CtC: <https://tinyurl.com/35yn8waa>

#### Bonus 4: Ten of Diamonds

Philip Newman

Normal sudoku rules apply. Digits along purple renban lines must form a consecutive set, in any order - for example, a 4-cell renban line could be 4352, but not 5679. Digits in cells directly connected by a green whispers line must differ by at least 5.



f-puzzles: <https://f-puzzles.com/?id=y2kn5eak>

CtC: <https://tinyurl.com/mtpna3s2>



### Bonus 5: No Even Neighbors

Clover

Normal sudoku rules apply. Even digits may never be orthogonally adjacent.

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

f-puzzles: <https://f-puzzles.com/?id=y4ulfnje>

CtC: <https://tinyurl.com/ydm7wkfn>

## Time Benchmarks

	One party hat	Two party hats	Today's dinosaur:
April 1, 2022 (skyscraper)	7:30	4:00	dubious deltadromeus
April 1, 2022 (kakuro)	15:00	8:30	sincere saurolophus
April 1, 2022 (classic sudoku) Note: the nonogram didn't have any published time standards! These times are for the sudoku only.	15:00	8:00	MADEYALOOK MADEUPASAURUS
April 2, 2022	11:00	6:00	slithering sonorasaurus
April 3, 2022	15:00	8:00	floral fulengia
April 4, 2022	13:30	7:30	pedantic parasaurolophus
April 5, 2022	11:00	5:30	yappy yizhousaurus
April 6, 2022	16:00	8:30	locked-out liliensternus
April 7, 2022	13:00	6:30	shapely saurophaganax
April 8, 2022	17:00	9:00	seriously secure sellosaurus
April 9, 2022	15:00	8:30	tactile talarurus
April 10, 2022	15:00	8:00	non-orthogonal nodosaurus
April 11, 2022	12:00	6:30	pampered pampadromaeus
April 12, 2022	13:00	7:00	undersized urbacodon
April 13, 2022	8:30	5:30	ordinary oviraptor
April 14, 2022	12:00	6:30	meteorological melanorosaurus
April 15, 2022	11:00	6:00	magical monolophosaurus
April 16, 2022	13:00	7:30	illusory iguanodon
April 17, 2022	13:00	7:30	abracadabra'd alakazam'n agustinia
April 18, 2022	15:00	8:30	intermediate ilokelesia
April 19, 2022	14:41	8:08	backwards brachiosaurus
April 20, 2022	12:00	6:30	half-baked hypselosaurus

April 21, 2022	11:00	6:00	confabulatory cruxicheiros
April 22, 2022	13:00	7:00	additive allosaurus
April 23, 2022	12:00	6:30	lookalike lamplughsaura
April 24, 2022	12:30	7:00	tallied tsagantegia
April 25, 2022	16:00	9:00	operatic oryctodromeus
April 26, 2022	12:00	6:30	lethargic leonerasaurus
April 27, 2022	13:30	7:30	tip-top tsintaosaurus
April 28, 2022	13:30	7:30	sequential sinoceratops
April 29, 2022	11:00	6:00	Liverpudlian leyesaurus
April 30, 2022	11:00	6:00	wiggly wannanosaurus