

krazydad

A Panoply of Puzzles

Volume 1

405 All Time Favorites



Jim Bumgardner

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ABOUT KRAZYDAD

I started the Krazydad website back in 2005, not long after the Sudoku craze migrated from Japan, to the U.K. and then to my home in California. After creating thousands of Sudoku puzzles, I added Kakuro, Mazes and eventually worked my way up to over forty other puzzle varieties. My little website now offers a little over two million puzzles, all freely downloadable, for you to print and enjoy.

Over the years, the number of people visiting the site has steadily grown. I get mail from all kinds of people – retirees looking to keep their minds active, single moms keeping their kids entertained on rainy days, and prisoners, looking for anything to keep them sane in a broken system.

Every now and again, I hear from someone who would prefer to purchase a book of my puzzles, rather than spend the time (not to mention the paper and ink) to self-print. So I'm now offering these puzzles in book form. I hope you like them!

I'm aware that online bookstores are full of tons of puzzle books, many of indifferent quality. It is my goal to go the extra mile. Unlike some other authors, I can assure you that all these puzzles were crafted (on my computer) with the highest regard to the solving experience.

Happy Puzzling!

Jim Bumgardner



ABOUT THIS BOOK

I have been planning this book for quite some time and I am thrilled to finally be releasing it. After some 30-odd volumes, this is my first book that contains a significant variety of puzzles, rather than just one or two kinds.

There are many people who will tell you that solving puzzles improves your aging brain, or staves off dementia. I am not so sure about such claims, and I am certainly not an expert in the field of brain health. I can only profess what I have observed through my own practice: *Solving a lot of Sudokus makes you better at solving Sudokus.*

I *do* believe that switching puzzle varieties occasionally, as you will need to do in this book, is a very healthy brain activity. You are not just training your brain to solve Sudoku, you are training it to *grasp new concepts*, to *learn* in other words, and that activity, I suspect, is more important than simple repetition.

This book contains symbolic logic puzzles, like Sudoku, as well as several puzzles that involve spatial reasoning (like Star Battle, Bridges, Galaxies and Slitherlink).



Every puzzle in this book has a unique solution, and you can find that solution (given enough experience) without having to resort to making guesses.

Each chapter of puzzles has been ordered by approximate difficulty so that the easier puzzles come first.

CLASSIC SUDOKU

INSTRUCTIONS

Fill in the blank squares so that each row, column, and 3×3 block contain all of the digits 1–9.

SAMPLE PUZZLE and SOLUTION

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

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

ABOUT SUDOKU

Sudoku as we know it was first published in Dell puzzle magazines in 1979 under the name *Number Place*. The puzzle became popular in Japan when it was published in the mid-80s by the Nikoli puzzle company. Eventually, it made its way out of Japan and was frequently published by several English-language newspapers in the early 2000s, becoming the biggest puzzle success since the crossword fad in the 1920s.

In the following pages, I have provided 30 classic Sudoku puzzles, in three difficulty levels (Easy, Medium and Hard). These are followed by several variations on the Sudoku theme.

If you find the medium and hard puzzles too challenging to solve, I suggest you seek out a strategy guide. I have provided several advanced strategy tips on my website at

<https://krazydad.com/sudokustrategy/>



#1

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

#2

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

VARIETY SUDOKU

ABOUT THIS SECTION

The variety sudoku puzzles in this section make use of several new rules which are visually coded (and in the final Sudoku puzzles, may appear in combination). These variations are:

X SUDOKU

Major diagonals also contain the digits 1–9

HYPER SUDOKU

Four shaded squares also contain the digits 1–9

CONSECUTIVE SUDOKU

All consecutive pairs of digits are clued with white bars.

JIGSAW SUDOKU

3×3 blocks are replaced with irregular 9–square pieces, each of which contains the digits 1–9.

X SUDOKU INSTRUCTIONS

Fill in the blank squares so that each row, column, 3×3 block, and *major diagonal* contain all of the digits 1–9.

SAMPLE PUZZLE and SOLUTION

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

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

HYPER SUDOKU INSTRUCTIONS

Fill in the blank squares so that each row, column, 3×3 block, and *shaded block* contain all of the digits 1–9.

SAMPLE PUZZLE and SOLUTION

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

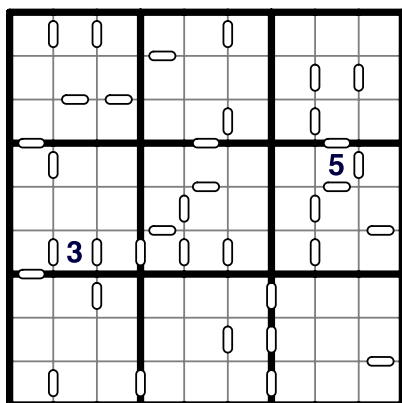
1	6	7	2	9	5	8	4	3
3	4	2	6	7	8	1	5	9
8	9	5	3	1	4	6	7	2
6	7	1	8	5	2	9	3	4
4	3	8	9	6	7	2	1	5
5	2	9	4	3	1	7	8	6
9	1	6	7	4	3	5	2	8
7	8	3	5	2	6	4	9	1
2	5	4	1	8	9	3	6	7

CONSECUTIVE SUDOKU INSTRUCTIONS

In addition to the normal rules, pairs of squares separated by white bars will always contain consecutive numbers. Squares that are not separated by white bars are always non-consecutive.

You will observe that these puzzles have far fewer given digits than regular Sudoku. This is because the consecutive clues reveal a great deal of information to help narrow down your choices.

SAMPLE PUZZLE and SOLUTION



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

JIGSAW SUDOKU INSTRUCTIONS

The usual 3×3 blocks have been replaced by irregular shapes. Each shape contains all of the digits 1–9.

SAMPLE PUZZLE and SOLUTION

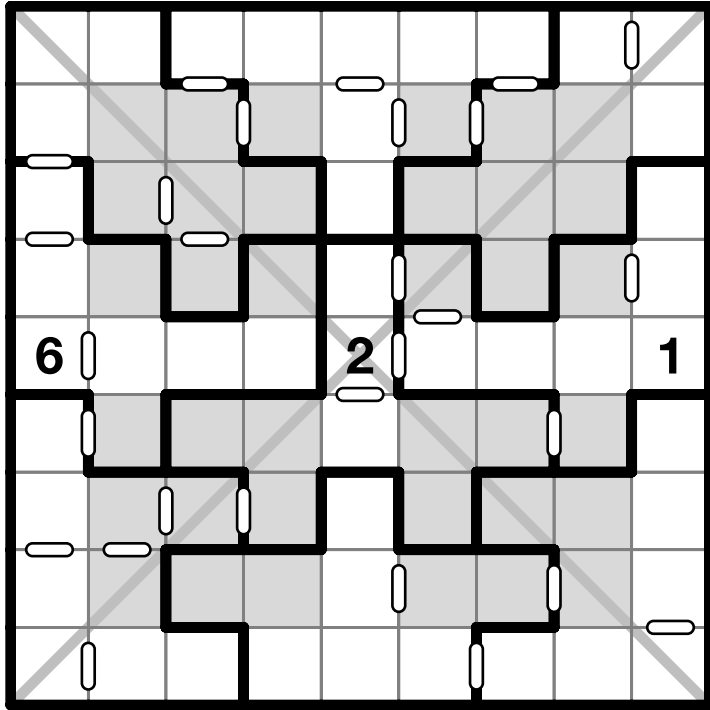
6	9						1	
		7	1					
1	3							
	4				9			
5								3
			4				5	
							2	5
					3	8		
	8						7	6

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

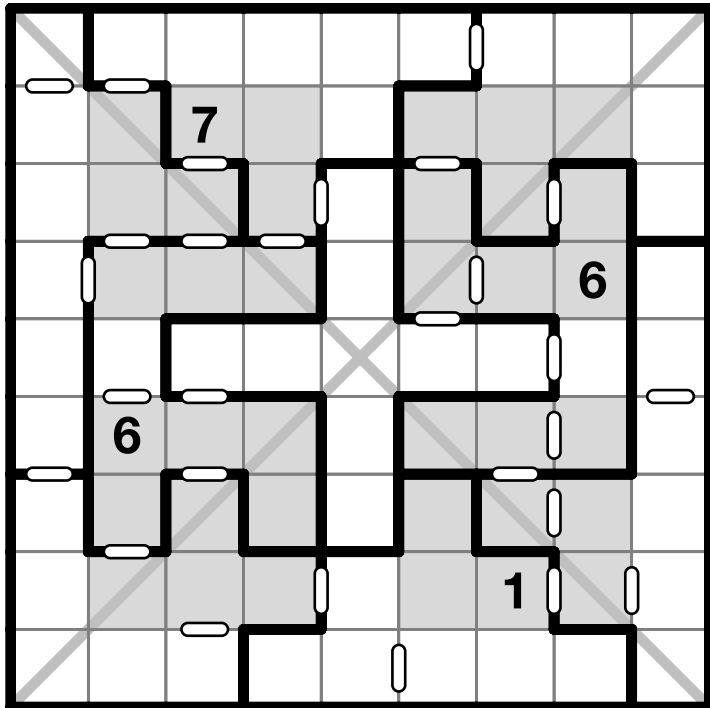
The remaining puzzles in this section mix and match the above variations.



#109



#110



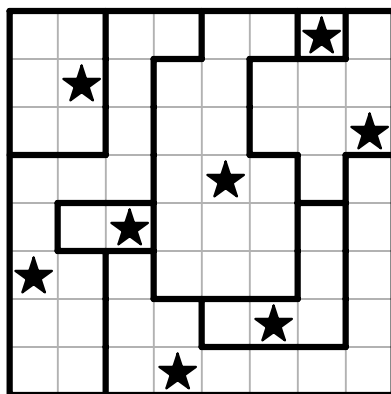
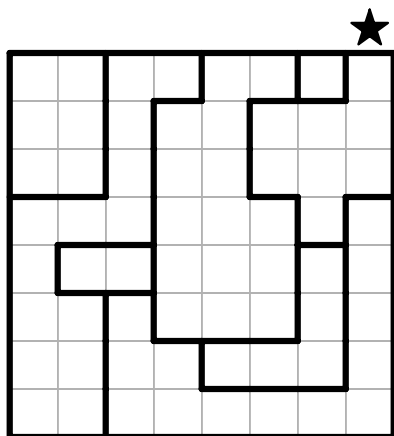
STAR BATTLE

INSTRUCTIONS

Each column, row, and bolded shape contains the same number of stars shown at the top of the puzzle (1 or 2).

Stars may not be adjacent to each other, horizontally, vertically, nor diagonally.

SAMPLE PUZZLE and SOLUTION



ABOUT STAR BATTLE

Star Battle puzzles first appeared in the Netherlands in 2003, the creation of the late Hans Eendebak, who designed them for the World Puzzle Championship.

In 2004, I started supplying these puzzles to *The New York Times*, where they are printed daily, under the more descriptive name *Two Not Touch*, from Monday through Saturday. These once obscure puzzles are now among the most popular on my website!

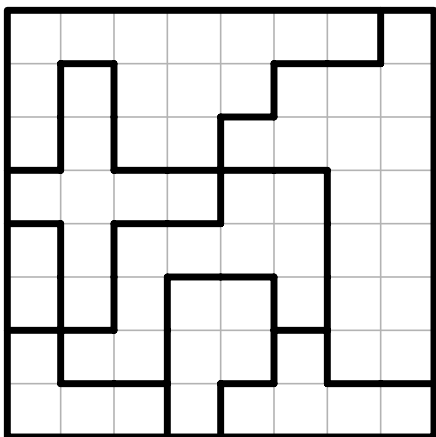
Star Battles have very simple rules, but a variety of different techniques are available to solve them. You can find some beginning and advanced tutorials on my website, here:

<https://krazydad.com/twonottouch/>

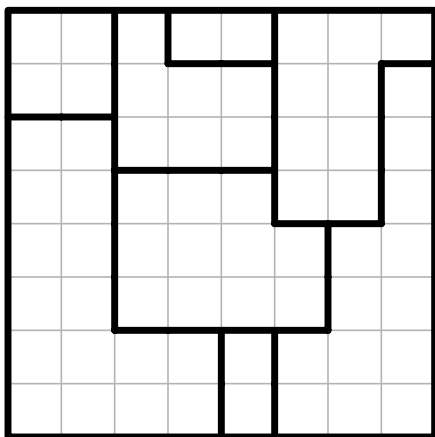
A note for those who are new to these puzzles: Identifying where you *can't* put stars is probably more important than where you *can*. I use dots to visually eliminate squares from contention.



#203

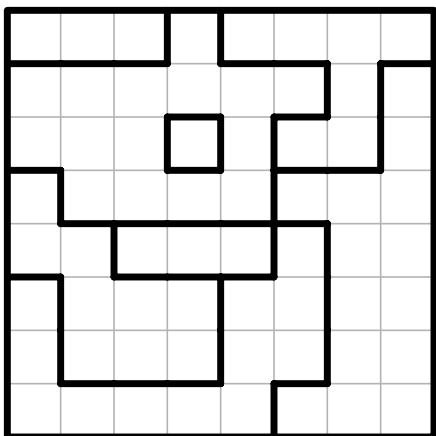


#204

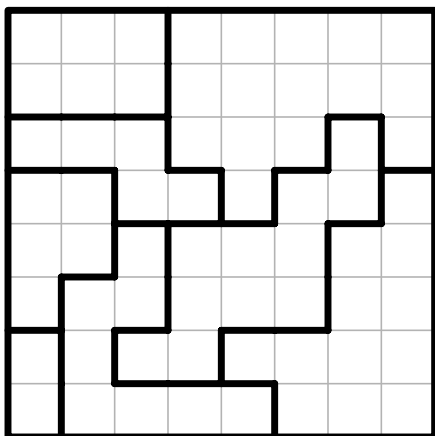


STAR BATTLE

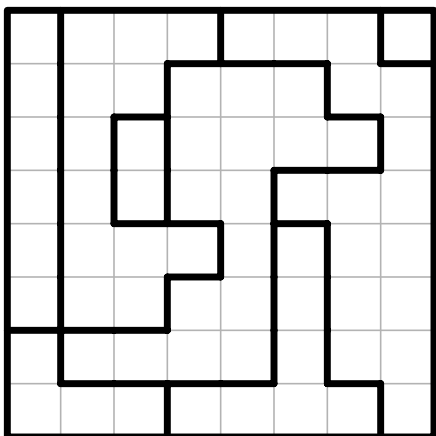
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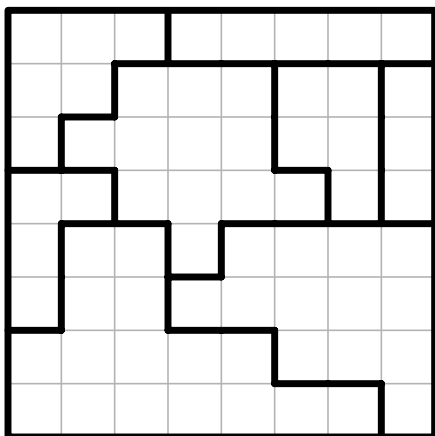
#206



#207



#208



SUGURU

INSTRUCTIONS

The grid is subdivided into containers or cages, each of which contains a set of sequential digits counting up from 1.

For example a 2-square container must hold the numbers 1 and 2.

A 5-square container must hold the numbers 1, 2, 3, 4, and 5.

Adjacent (touching) cells may *never* contain the same number, and this includes diagonally adjacent cells.

SAMPLE PUZZLE and SOLUTION

	1					2
			3		3	
		2				
			3			
			5		5	
		1	4		4	

4	1	2	5	4	5	2
3	5	4	3	2	3	1
4	1	2	1	5	4	5
5	3	4	3	2	1	2
1	2	1	5	4	5	3
3	4	3	2	3	2	1
2	5	1	4	1	4	3

ABOUT SUGURU

Suguru (not to be confused with Sudoku) is also published under the name *Tectonics* and *Number Blocks*. This puzzle was invented in Japan by the prolific puzzle designer Naoki Inaba.

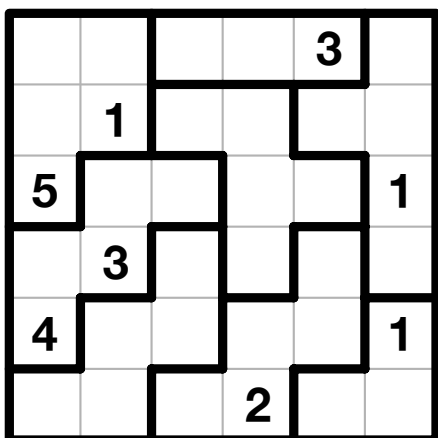
These puzzles have very simple instructions, but a very wide spectrum of difficulties, ranging from easy to insanely challenging.

The smaller puzzles have blocks up to 5 squares in size, while the larger one-page puzzles go up to 6.

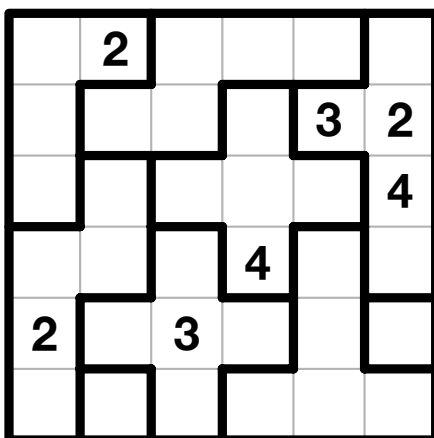
The Ripple Effect puzzles, which follow in the next section, are similar to Suguru, but have different rules, with blocks sometimes as large as 9 squares.



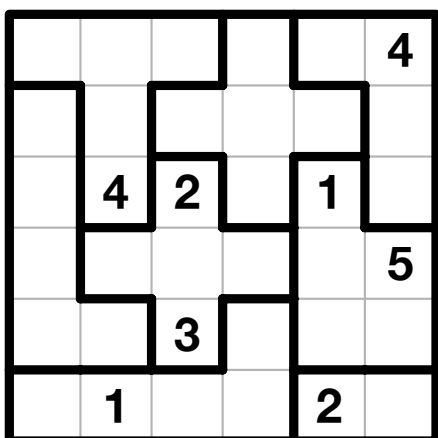
#111



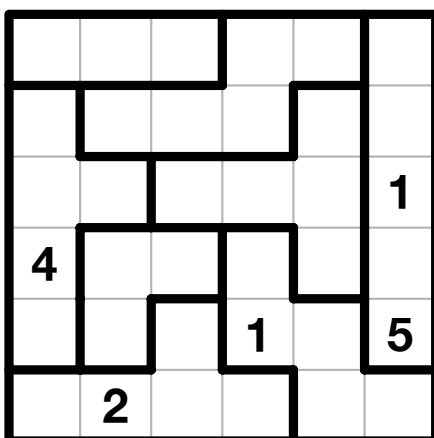
#112



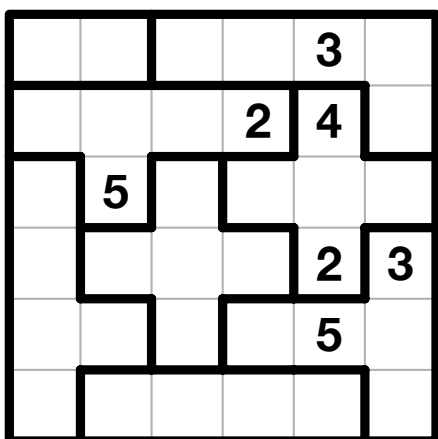
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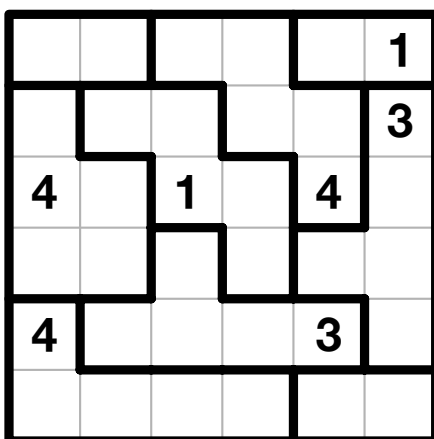
#114



#115



#116



RIPPLE EFFECT

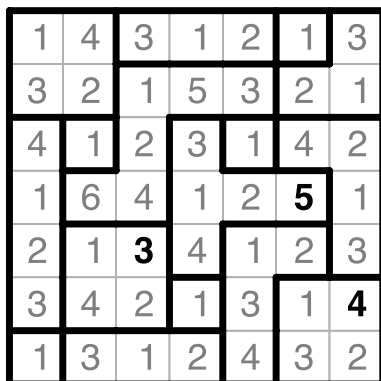
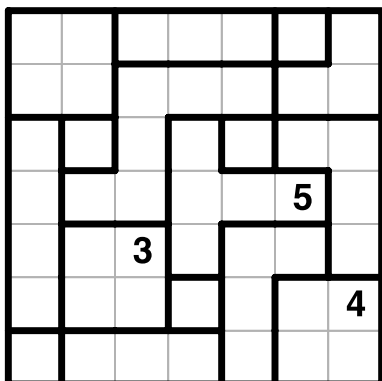
INSTRUCTIONS

The grid is subdivided into containers or cages, each of which contains a set of sequential digits counting up from 1. For example a 2-square container must hold the numbers 1 and 2. A 5-square container must hold the numbers 1, 2, 3, 4, and 5.

Unlike Suguru, diagonal adjacency is okay. But digits are meaningful: they indicate minimum distance vertically and horizontally, as follows:

If two identical digits appear in the same row or column, at least that many cells must separate them. For example, if two 3s appear in the same column, they must be separated by at least 3 other cells that do not contain 3. Higher numbers are kept even further apart.

SAMPLE PUZZLE and SOLUTION



BRIDGES

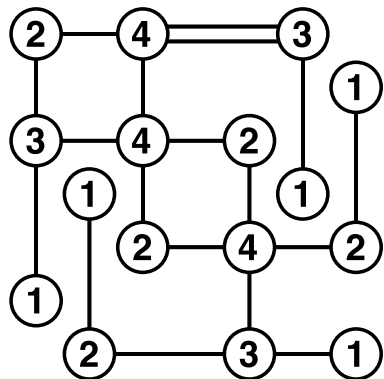
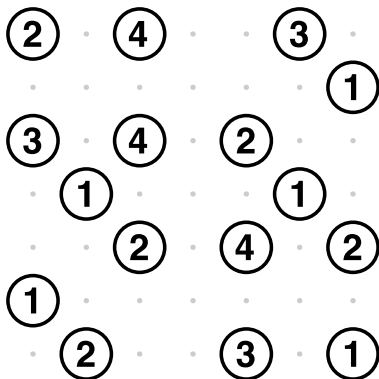
INSTRUCTIONS

Connect the islands with bridges until each island can be reached from any other island, and each island has as many outgoing bridges as its number.

You may only connect islands vertically or horizontally and bridges may not cross or pass over other islands.

There may be one or two bridges connecting the same pair of islands, but no more than two.

SAMPLE PUZZLE and SOLUTION



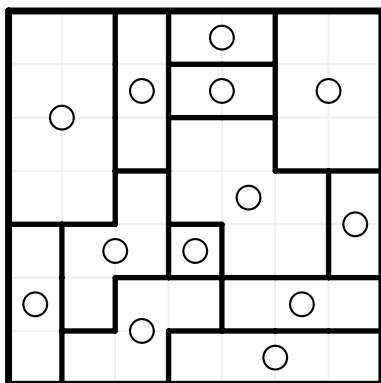
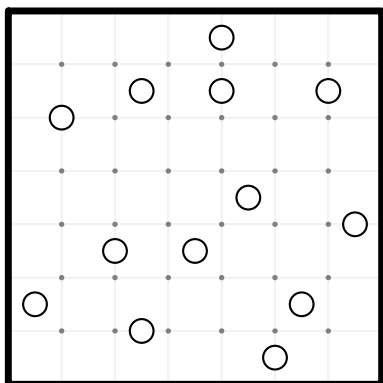
GALAXIES

INSTRUCTIONS

Connect the corners to make edges so that each hollow circle is surrounded by a symmetrical shape, and the puzzle is completely tiled with galaxies.

Each galaxy shape must be rotationally symmetric about its center circle, having an identical shape when rotated 180 degrees.

SAMPLE PUZZLE and SOLUTION



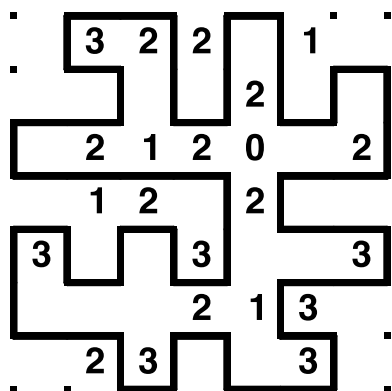
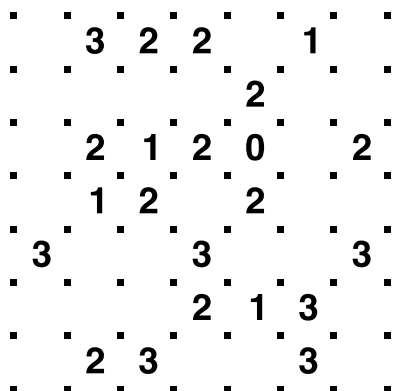
SLITHERLINK

INSTRUCTIONS

Connect horizontally or vertically adjacent dots to form a meandering path that forms a single loop, without crossing or touching itself.

The numeric clues indicate how many path segments (edges) surround each cell. Empty cells may be surrounded by any number of edges (from 0 to 3).

SAMPLE PUZZLE and SOLUTION



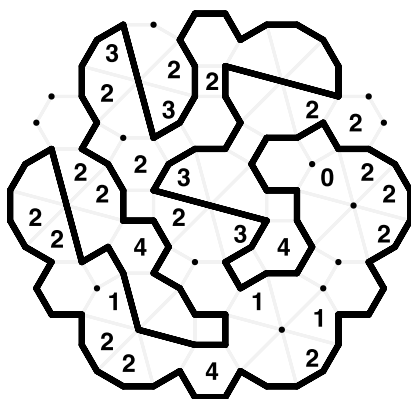
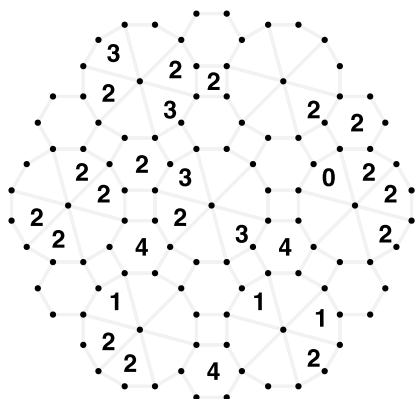
VARIETY SLITHERLINK

INSTRUCTIONS

Connect adjacent dots, filling in the cell edges to form a meandering path that forms a single loop, without crossing itself, touching at corners, nor branching.

The numbers indicate how many lines surround each cell. Empty cells may be surrounded by any number of lines.

SAMPLE PUZZLE and SOLUTION



ABOUT VARIETY SLITHERLINK

Slitherlinks on unusual grids is one of my own ideas. I first published some puzzles in this style in 2007. I am offering a variety of tilings here, including aperiodic Penrose tilings, Hexagonal, Cairo, Laves and Altair tilings, among others.

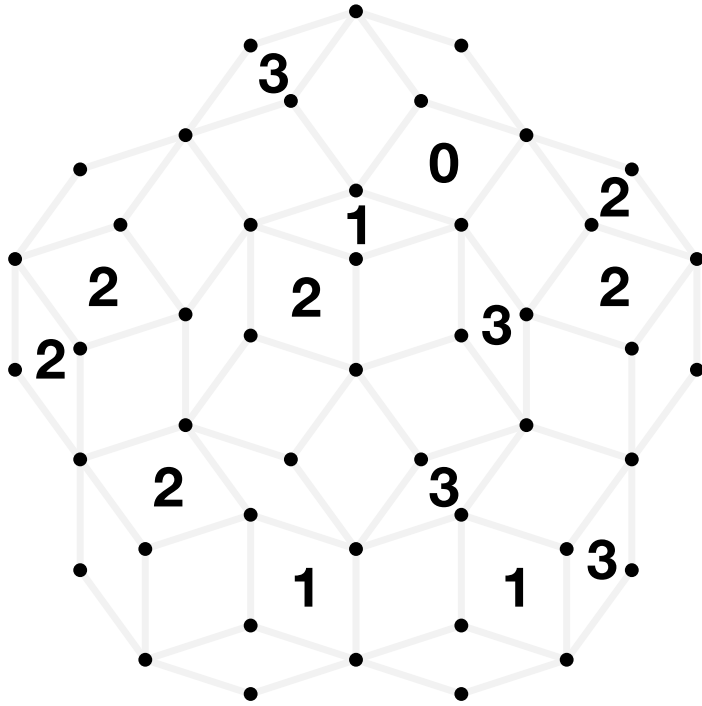
If you are not familiar with Slitherlink, I suggest you start with the previous section, which uses square grids, and for which a great deal of strategy advice exists on Wikipedia. Once you've mastered the basic strategy, come back here!

I like using non-square grids for Slitherlink. Not just because they beautiful, but because the tilings change the familiar rules, or at least compel you to *generalize* the rules so they work on cells that don't have just 4 sides, and intersections other than just 4-way intersections. If you are a fan of music in unusual meters, such as 5/4 time, I think you'll enjoy these puzzles.

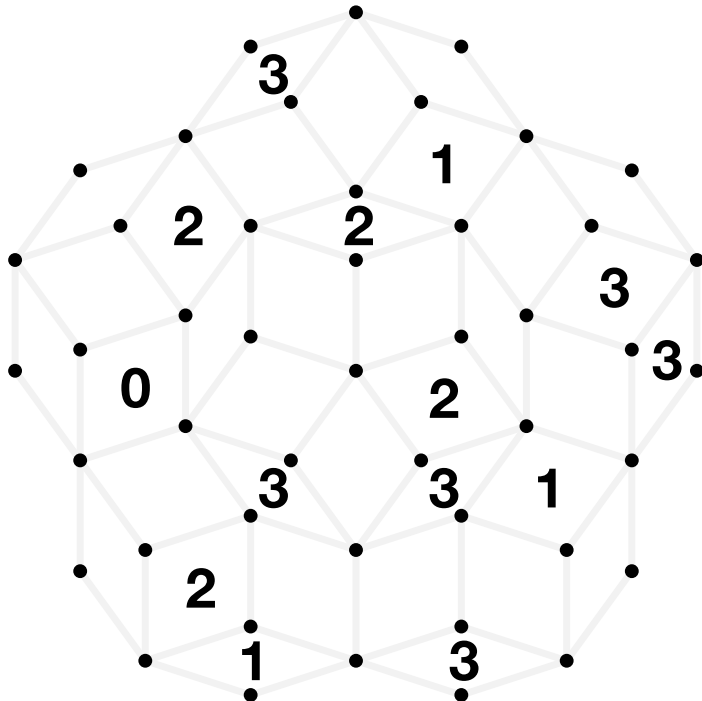
These tilings are also fun to color, so get your markers out!



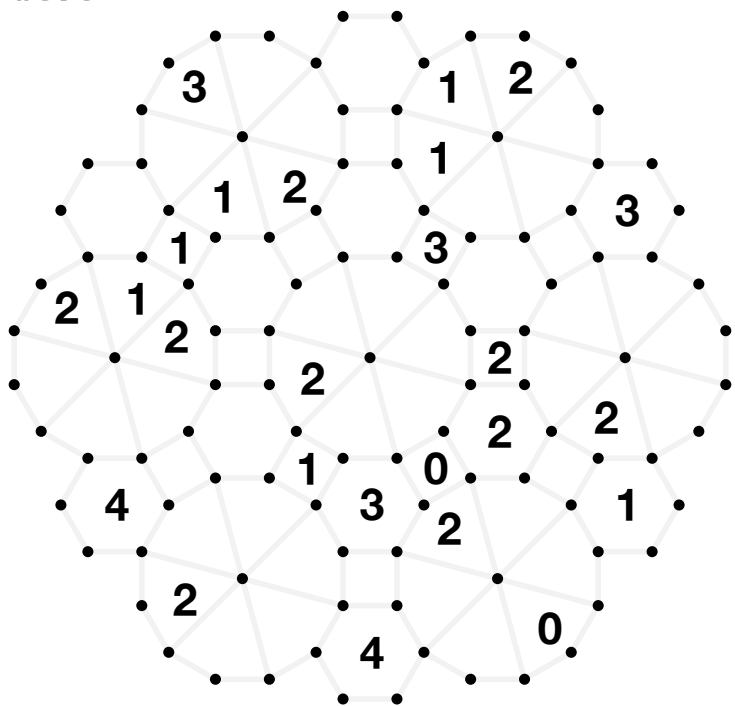
#368



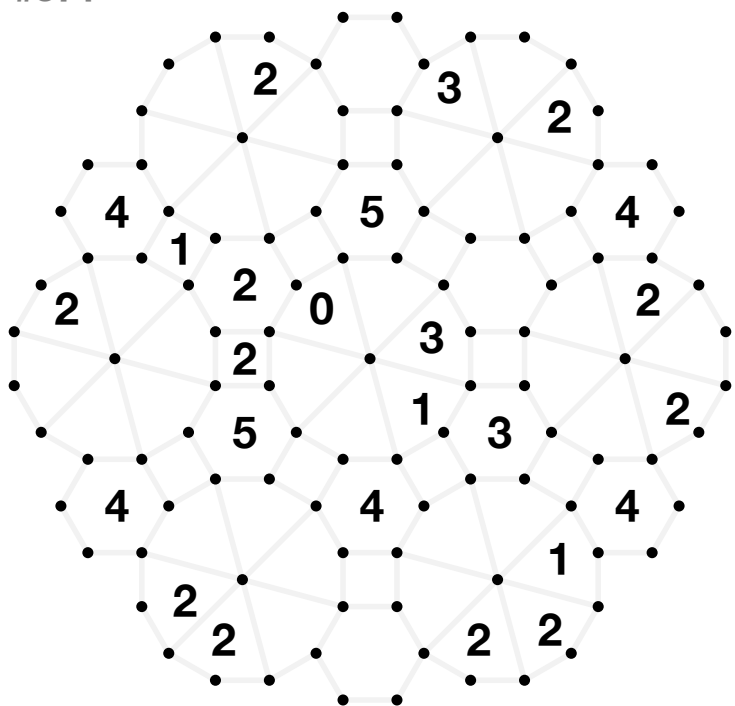
#369



VARIETY SLITHERLINK
#370

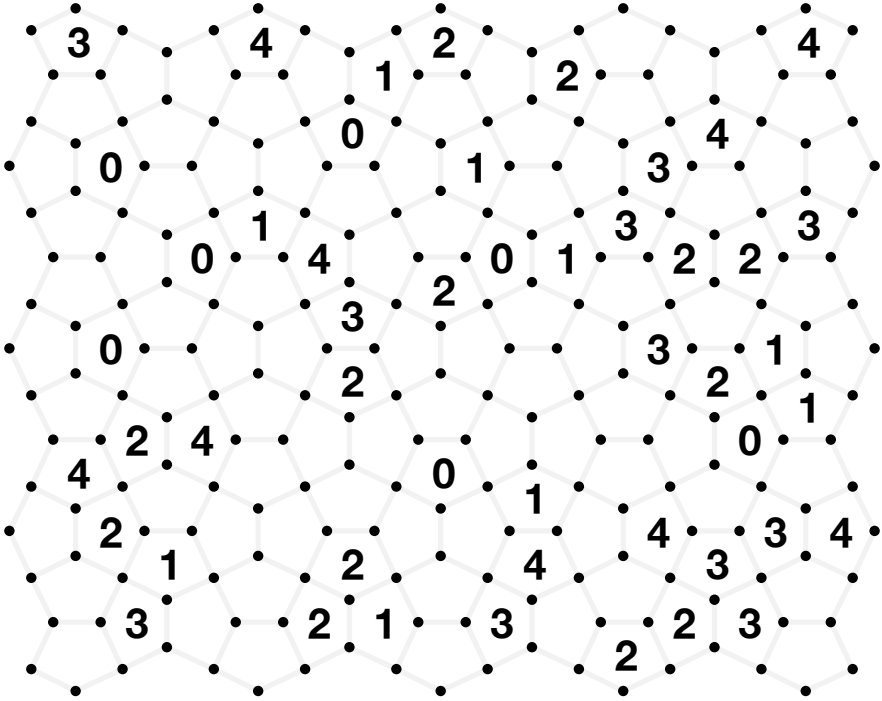


#371

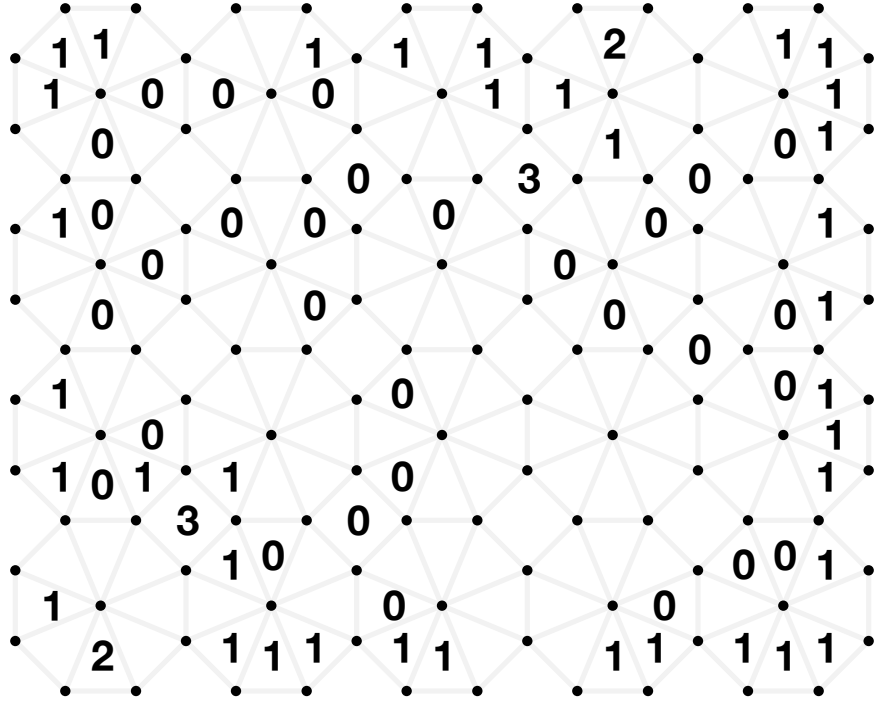


VARIETY SLITHERLINK

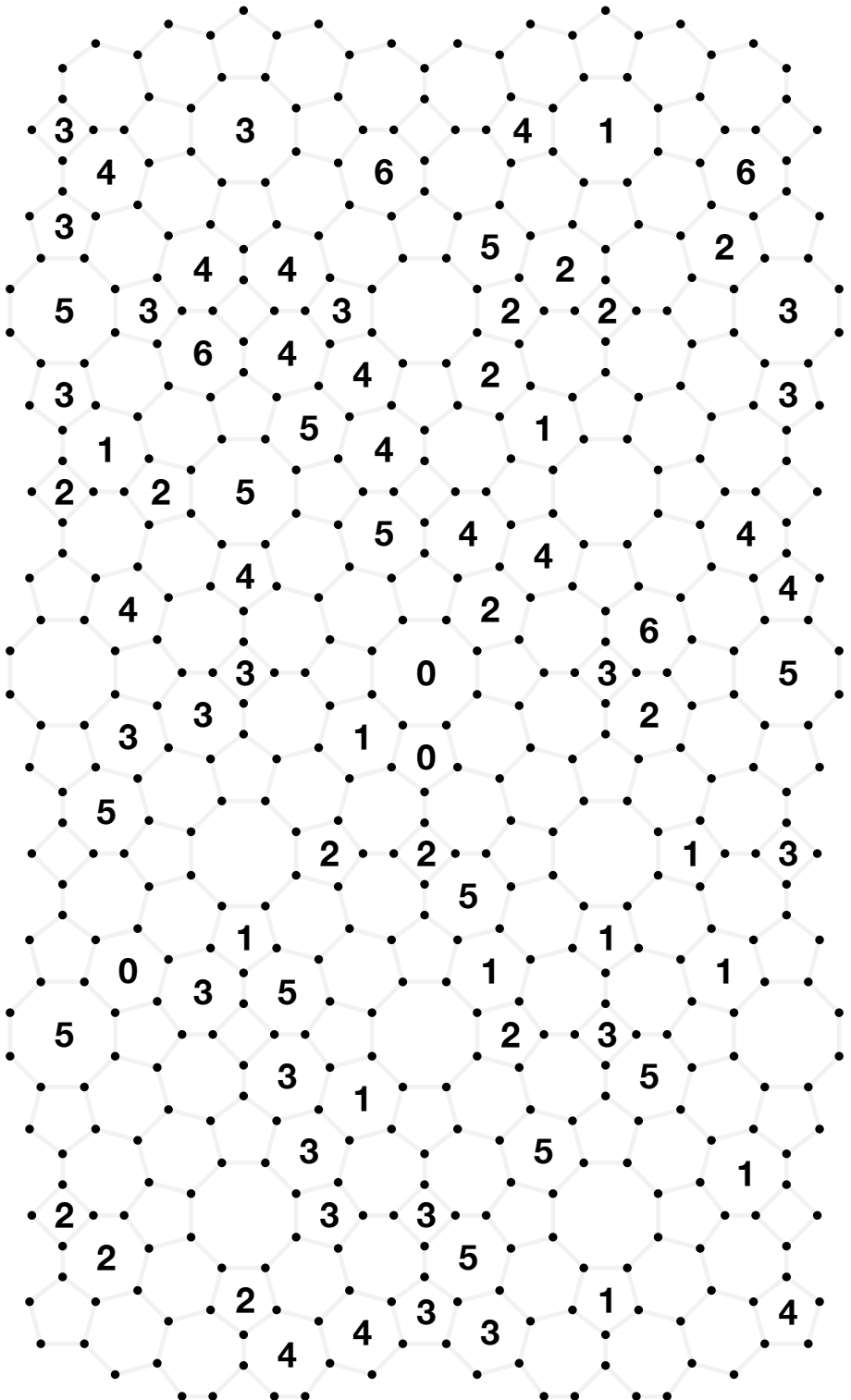
#380



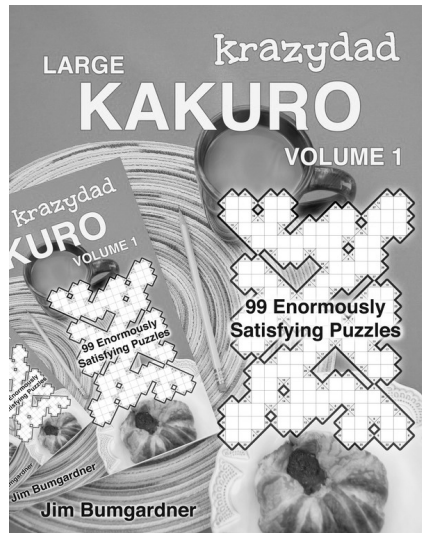
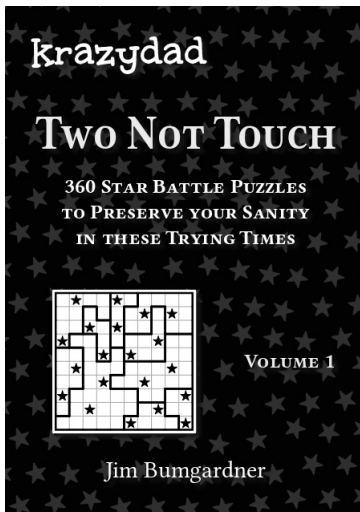
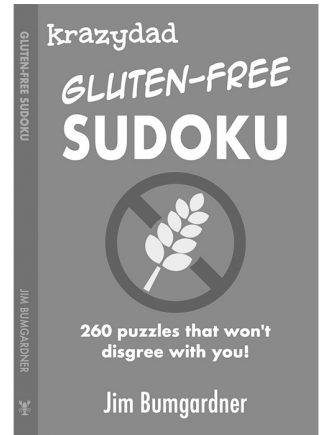
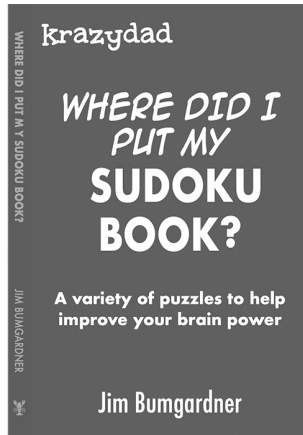
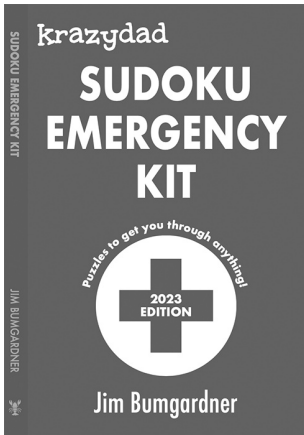
#381



#388



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