

Play Journal 5: Sudoku

Mackenzie Campbell

Sudoku is an easy to learn logic-based number placement puzzle. It is a game I have always played within my family and not something exactly new to me but I have not played in quite some time.

Game Play

Traditional Sudoku is a 9x9 puzzle grid made up of nine 3x3 regions. Each region, row, and column contains nine cells each and needs to be filled out with the numbers 1-9, without repeating any numbers within the row, column or square.

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

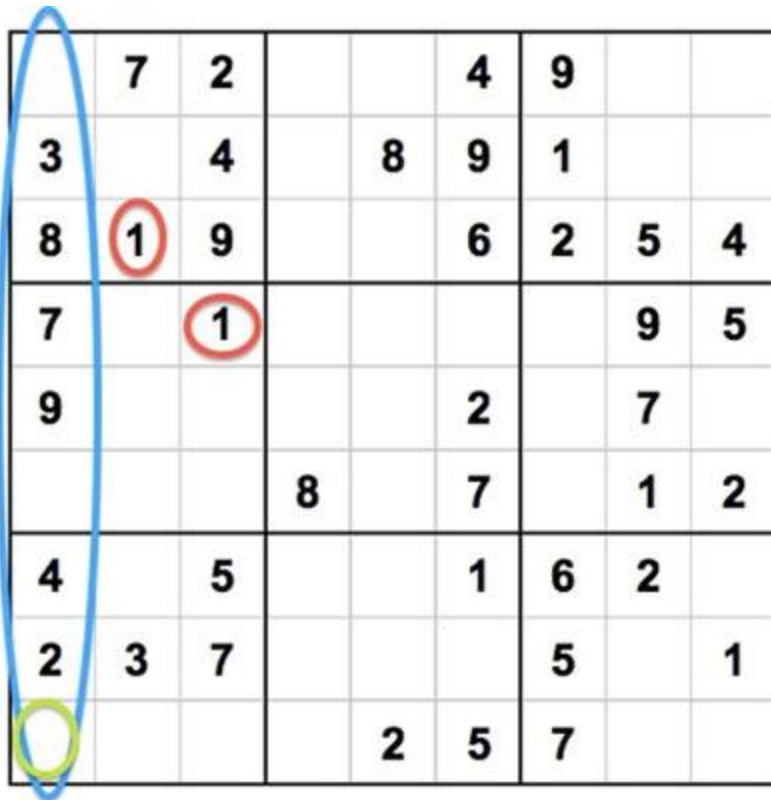
The numbers shown in the example are the "givens". These numbers can not be changed in any puzzle.

You solve the puzzle by filling in the empty cells with a single number, from all the possible candidates. There is only one correct number per cell.

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

As you can see, in the upper left square (circled in blue), this square already has 7 out of the 9 spaces filled in. The only numbers missing from the square are 5 and 6. By seeing which numbers are missing from each square, row, or column, we can use the process of elimination and deductive reasoning to decide which numbers need to go in each blank space.

Sudoku is a game of logic and reasoning, so you shouldn't have to guess. If you don't know what number to put in a certain space, keep scanning the other areas of the grid until you see an opportunity to place a number.



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

One way to figure out which numbers can go in each space, which I rely on mainly, is to use the process of elimination by checking to see which other numbers are already included within each square, since there can be no duplication of numbers 1-9 within each square (or row or column).

The goal is to fill in each missing number, again you shouldn't have any number more than one in each column or row.

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

Experience/Connections

This game has a similar person story as when I played Rummikub a couple cycles ago. My grandma introduced my sister and I to this game when we were younger (probably like 3rd/4th grade). Anytime we would go or travel somewhere my grandma would pull her Sudoku book from her purse and begin playing. Obviously, my sister and I, being the nosey kids we were, wanted her to teach us how to play. So, she would rip a page out for my sister and I and taught us how to play (a beginner level of course). She told us the basic rules, as mentioned above, and then ran through a game with us. My sister is the smarter one and picked up on it really quick so I relied on her to run me through it as well. Once we got the hang of it my grandma bought us each our own Sudoku books that we can play. Definitely a nostalgic game for me.

My grandma recently passed away so my mom and I were talking about all the games she used to play and we brought up this game so I thought it was a perfect game to play for my last play journal. Instead of using the book (I looked but I bet I got rid of it years ago) I downloaded

a [Sudoku game on my phone](#), more convenient and I wanted to see the similarities and differences. The book my grandma got us was a regular set up divided by beginner, intermediate, and difficult games. In the back of the book had all the cheat cheats to check your work. My grandma instilled in my sister and I we were not allowed to use the back to cheat so we really never did (surprising I know, but we always listened to her). So you were really left up to yourself to finish the puzzle with no hints or being told you are correct or wrong, there isn't any learner guidance (Becker, 2005). In the app, it provides a little different set up. You are run through how to play in the beginning and can always refer to that in settings. You pick your level of difficulty, it is pretty much the same different levels. There are also daily challenges, a leaderboard to compare yourself, and statistics which I never look at but think is a cool feature! When you pick your level it generates a board for you. In the app there are a couple different features than if you were to play on a physical paper. As soon as you enter a number onto the board it tells you are correct or wrong. You only are allowed two mistakes and by the third mistake your game is over and have to play a new game. It times your game as well. I don't really pay attention to this but this supports the statistics aspect of your game. You are also allowed one hint per game so if you are stuck it will help you out and give you a number on the board. Another neat feature is if you aren't sure exactly what number to use and it can go in two different spots and you just want to make note of that you can turn on your notes button where it will "write in pencil" for you so you have that reminder in the corner of the square but it doesn't officially fill it in for you. That has been a neat feature to utilize. Although the game is the same it has been nice to have different features for the app. I think they would be beneficial for new players. Although it isn't sandbox play it provides scaffolding tools and techniques you wouldn't necessarily get with the physical game (Gee, 2004).

Like mentioned earlier this game does require strategy my grandma, sister, and I all started the game with different strategies. My grandma starts by looking at each 3 x 3 box and trying to fill in each square, while I start by going through in numerical order from 1 to 9 and see what I can fill in, while my sister literally just scans the page and sees what she can fill in (can't describe it in any other way, she is a number freak). We all end up finishing the game but it is interesting to compare the different strategies for how people start or work through the game. After reading the Stevens et al. (2008) case studies I like to compare those to the gameplay I participate in. This reminded me of the Katarina and Rachel case study, they were playing *Zoo Tycoon*. They played the same game and had the same end goal but started with completely different approaches and strategies, similar to how my family all plays Sudoku (Stevens et al., 2008 & Shapiro, 2013).

References

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