

Witch's Curse – Full Solution Guide

This is a full solution guide to my puzzle *Witch's Curse*, and so spoilers are ahead.

Rules

- 1-9 Fillomino: Divide the grid into regions, such that no two orthogonally adjacent regions have the same size. Write the size of its region into each cell as that cell's value. Regions have a maximum size of 9
- **Non-Consecutive:** Orthogonally adjacent cells may not contain consecutive digits

Solve Path

- By non-consecutive, the 6 region in R1C4 must go right, and the 5 region in R2C3 must go down
- The 9 region is getting penned in so also needs to go down
- We can also draw borders between neighbouring cells that contain different digits

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

- 5 region can't neighbour a 4, so it turns into C2 and ends
- 9 region needs to grow. It may also take R1C3 or this may be a 1 region

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

- Can the two 4 regions connect? No. Doing so would leave an area neighbouring the 5 region which could not be filled by any combination of 1, 2 or 3 size regions
- Hence the 4s are separate regions and do some growing
- The only region that can separate the 2 and 3 in R2 is the 6 from R1 which then can be completed
- There is some region that starts in R3C4 and isn't from 1 to 6 by non-consecutive and fillomino

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

- R5C4 must grow down to R7, and it can take one more cell
- Can R8C3 grow down to R9? No, it would trap in the R9C1 region and force the 8 and 9 to connect in some manner
- Hence the 8 must escape through R9C3 in some manner, which shuts in the 5 region which is now entirely forced
- The 9 grows a further cell
- In the top-right, the 3 grows to take R8C2. If it took R8C3 then nothing could take R7C3, hence this grows right, and leaves a 1 region in R1C9

- The dark green region must grow and will neighbour the 6, so this is now from 89
- This is unable to meet R5C8, so dark green and that 8 are different regions and must not touch by non-consecutive
- R4C7 and R5C8 now share the available space in one orientation

2	9	19	6	6	6	6	6	1
2	9	5	2	2	6	3	3	3
9	9	5	89	4	4	8	8	8
9	5	5	89	89	4	2	8	8
9	5		4	89	4	2	8	8
9		4	4	89	89	89		8
5	5		4	4	6			2
5	5	5	8	1	8	6		
8	8	8	8	8	8	8		

- If R7C9 grew left, it would leave an isolated cell that has no options, hence it grows down
- Now consider what can take R9C9. The available space (red) is 11 cells, and it needs to accommodate at a 6 region, one more yellow, at least one more dark green, so a new region here couldn't be any larger than 3
- This hypothetical region can't take R9C9 by non-consecutive, hence the only region that can take this is the 6

2	9	19	6	6	6	6	6	1
2	9	5	2	2	6	3	3	3
9	9	5	89	4	4	8	8	8
9	5	5	89	89	4	2	8	8
9	5		4	89	4	2	8	8
9		4	4	89	89	89		8
5	5		4	4	6			2
5	5	5	8	1	8	6	T	2
8	8	8	8	8	8	8		

- The 6 region now is entirely forced and traps in the 8 region which is also forced
- Leaves a small area unoccupied

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

- The unoccupied area must be fulfilled by R6C8 being a 1, and the dark green region takes R7C8 and is size 9
- To fulfil the remaining space in C3, the 9 has to take R6C3, and 1 regions fill in the gaps

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

Bonus Puzzle – Rules

- Normal sudoku rules apply: Place the digits 1 to 9 once each in every row, column, and 3x3 box
- **Non-Consecutive:** Adjacent cells can't contain consecutive digits

Bonus Puzzle – Solve Path

- It's non-consecutive sudoku so there are probably multiple paths through, but in general
- Where is 7 in C8? Not next to 6 or 8 so is placed
- Where is 8 in R2? Not in box 3 or next to a 9, so is placed, and then in box 1

- Where is 1 in box 2? Not next to a 2, so is placed

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

- 7 in R2 can't go next to 8, so is placed
- 2 in R1 can't go next to 1, so makes a 24 pair in box 3
- Places 9 in box 3
- Gives a 237 triple in box 1, and places various other digits

8	6	1	3	⁵⁹	⁵⁹	²⁴	7	²⁴
⁴ ₄₅	9	⁴ ₄₅	8	2	7	¹⁶	3	¹⁶
² ₂₃₇	² ₂₃₇	³⁷	1	6	4	9	5	8
							8	
			4			⁸		
	5					⁸	6	
					8			

- 7 needs to chaperone the 23 in box 1, going in R3C2, which resolves the remaining digits
- 56 look into box 8, giving a pair
- 4 in box 7 is placed, and resolves the 56 pair

8	6	1	3	5	9	4	7	2
4	9	5	8	2	7	1	3	6
2	7	3	1	6	4	9	5	8
	4				1	6	12	5
	4				1	6	8	5
	4				1	6	124	9
			4	1	5	8	9	
	5		2	79	2	8	6	4
		4	6	1	8	5	9	

- 4 placed in box 9, non-consecutive creates pairs in box 9, box 6, and a 267 triple in C7

8	6	1	3	5	9	4	7	2
4	9	5	8	2	7	1	3	6
2	7	3	1	6	4	9	5	8
	4					6 ₆₇	1	5 ₃₅
	4				1	6 ₂₆	8	5 ₃₅
					1	6 ₂₆₇	4	9
6		6	4	1	5	8 ₃₈	9 ₂₉	7 ₁₇
	5		2	79	2	8 ₃₈	6	4
		4	6	1	8	5	9 ₂₉	7 ₁₇

- 2 needs to chaperone the 67 in C7, so is in R5C7
- Marking C6 gives a 1236 triple, with the 6 placed
- Non-consecutive does a lot of work to get down to mostly pairs and triples

8	6	1	3	5	9	4	7	2
4	9	5	8	2	7	1	3	6
2	7	3	1	6	4	9	5	8
69	34	69	59	8	2	7	1	35
1379	13	79	59	4	6	2	8	35
5	28	28	7	1	3	6	4	9
1379	1238	26789	4	79	5	⁸ ₃₈	⁹ ₂₉	⁷ ₁₇
379	5	789	2	79	1	⁸ ₃₈	6	4
79	12	4	6	3	8	5	⁹ ₂₉	⁷ ₁₇

- 69 pair in box 4, or non-consecutive, resolves R4C4 to be 5
- Sudoku follows to get down to a deadly pattern of 13s

8	6	1	3	5	9	4	7	2
4	9	5	8	2	7	1	3	6
2	7	3	1	6	4	9	5	8
6	4	9	5	8	2	7	1	3
13	13	7	9	4	6	2	8	5
5	8	2	7	1	3	6	4	9
13	13	6	4	9	5	8	2	7
9	5	8	2	7	1	3	6	4
7	2	4	6	3	8	5	9	1

- Resolved by non-consecutive

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

- No solution code for this puzzle, just a bonus, so pat yourself on the back