Die HotelRezeption – Full Solution Guide

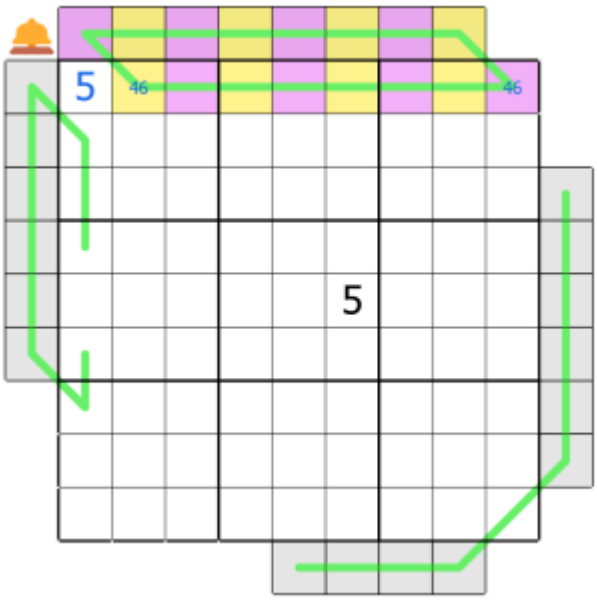
This is a full solution guide to my puzzle *Die Hotelrezeption*, and so spoilers are ahead.

Rules

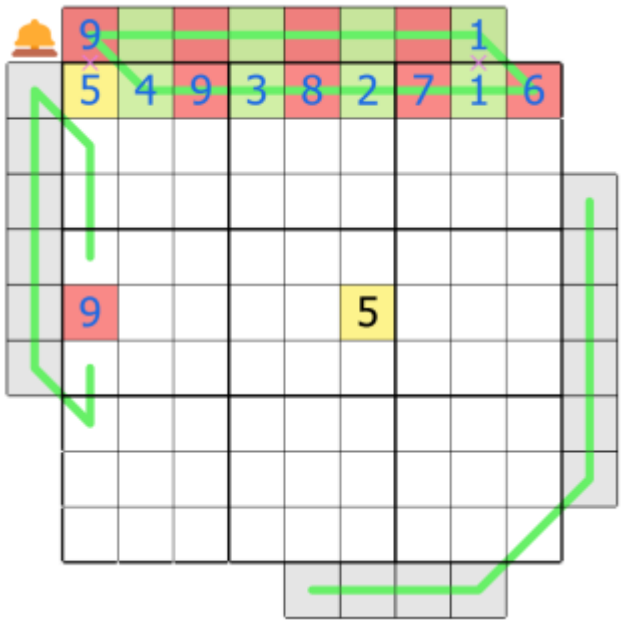
- Normal sudoku rules apply: Place the digits 1 to 9 once each in every row, column, and 3x3 box
- German Whispers: Adjacent digits on a green line must differ by at least 5
- Numbered Rooms: Clues outside the grid give the digit to be placed in the Nth position in that row or column, where N is the digit in the first cell. Numbered rooms are to be determined by the solver

Solve Path

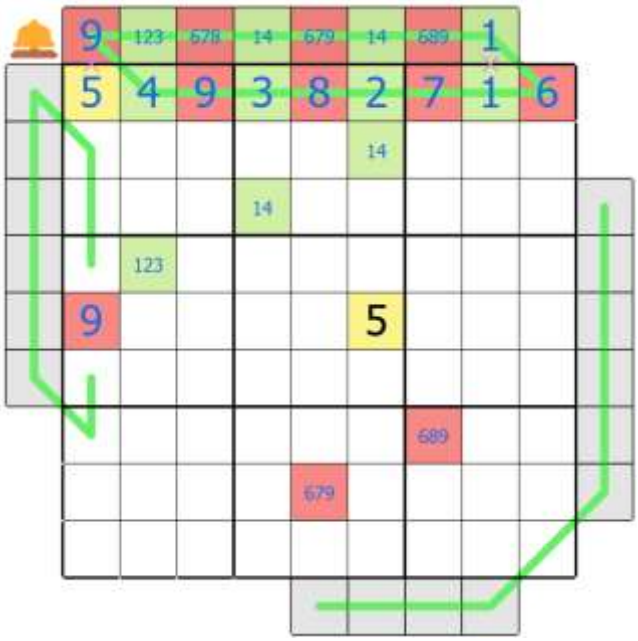
- Numbered rooms clues can only be between 1 and 9, so we can still polarity shade the line outside the grid
- 5 can't go on a whisper line so it is placed in row 1
- 46 are in R1C2 and R1C9 in some order



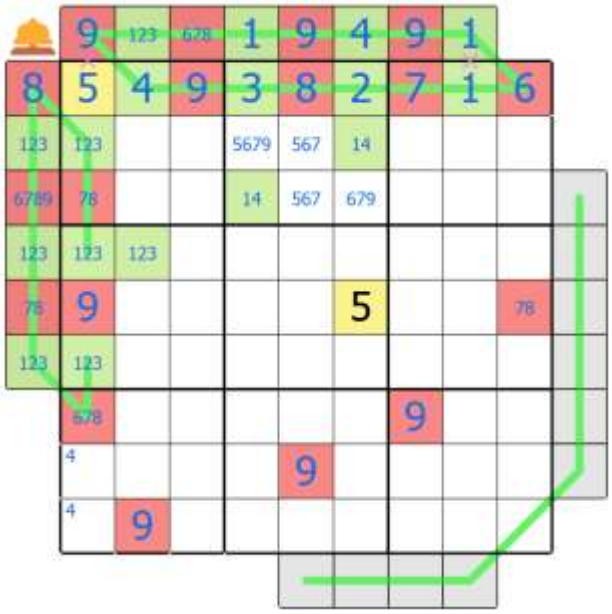
- If R1C9 is a 4, it places 9 in R1C8 and makes the C8 numbered rooms clue a 9. This results in a contradiction
- Hence R1C9 is 6, placing 1 in R1C8 and a 1 in the C8 numbered rooms clue, which is the only option which works this way
- Shading on the line and thus the digits is determined



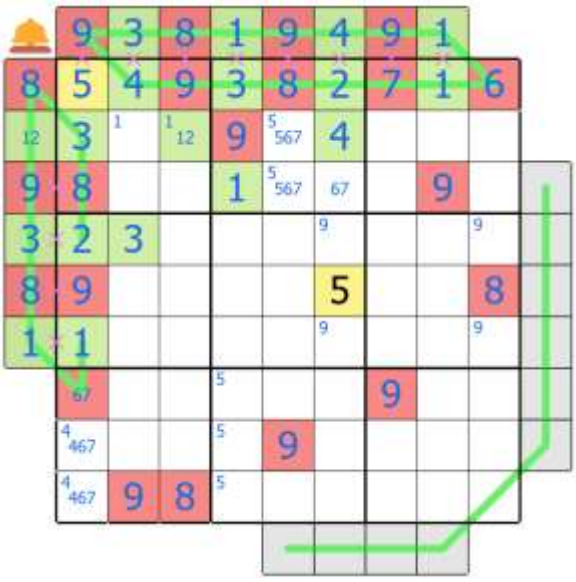
- We can fill in the outside clues above the grid with candidates
- Note that R1C4 and R1C6 are placing low digits into box 2, hence the outside clues must be 1 and 4
- The 4 clue must go in R0C6 as R0C4 is next to a cell which can't contain a 9



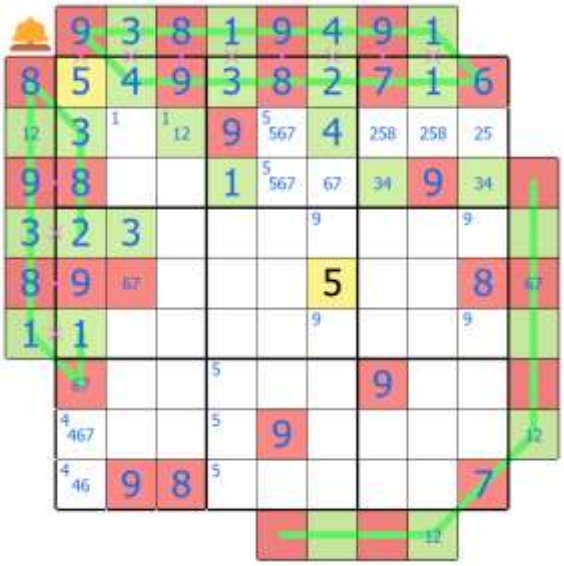
- Gives some outside 9 clues and places some 9s
- Shading on C1 whisper line is determined by R1C1 indexing a high digit
- Gives a 123 triple in c1



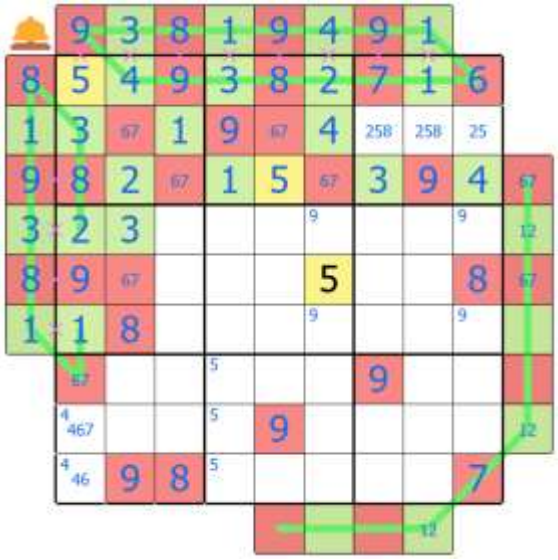
- Similar trick in box 4. R4C1 and R6C1 can't index any extra 123s into the box, so R6C1 is a 1, and R4C1 is a 2, indexing a 3
- Makes R5C0 a 8 clue, R2C1 a 3 placing a 12 in the box and R3C1 a 8, making R3C0 a 9 clue placing the 9
- Leaves 467 triple at bottom of C1
- Places 9 in box 2



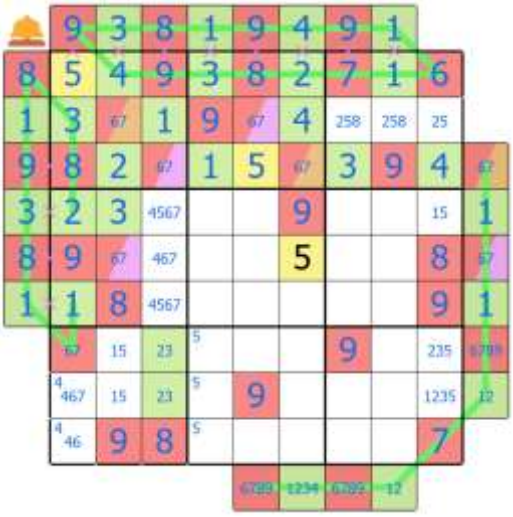
- R5C9 is indexing into R5C2. This cell sees 1234, so the clue is a high digit, giving shading on the line
- Places 7 in R9C9 as this sees all other highs
- There is a 258 triple in box 3



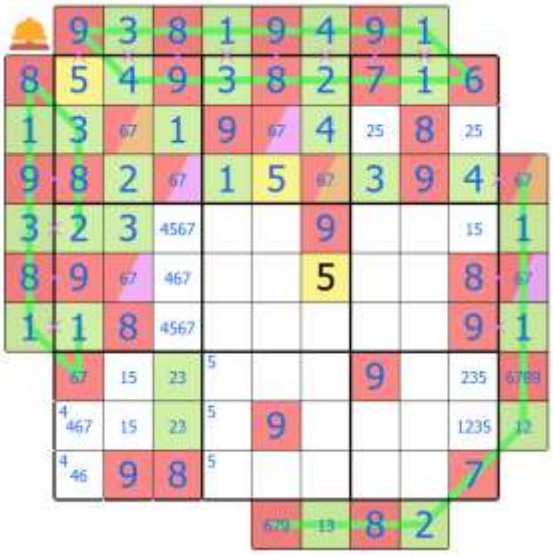
- Box 3 triple makes R2C3 a 1 and R3C5 a 5
- Leaves some 67 pairs
- R3C9 is 3 or 4 but must index a high digit. Hence it is a 4, indexing a 67
- R5C9 also indexing a 67 as 8 and 9 taken in the row



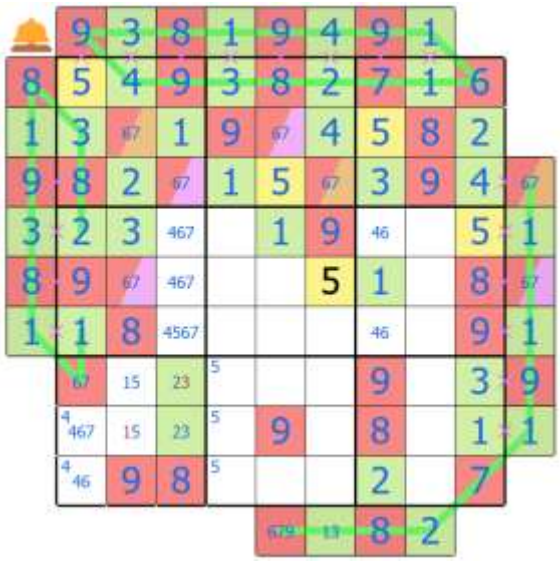
- Colouring the 67s we can see that R3C9 and R5C9 are indexing different flavours of 67, so one of them is a 6
- Makes R4 clue a 1
- Makes R6C9 a 9, indexing a 1



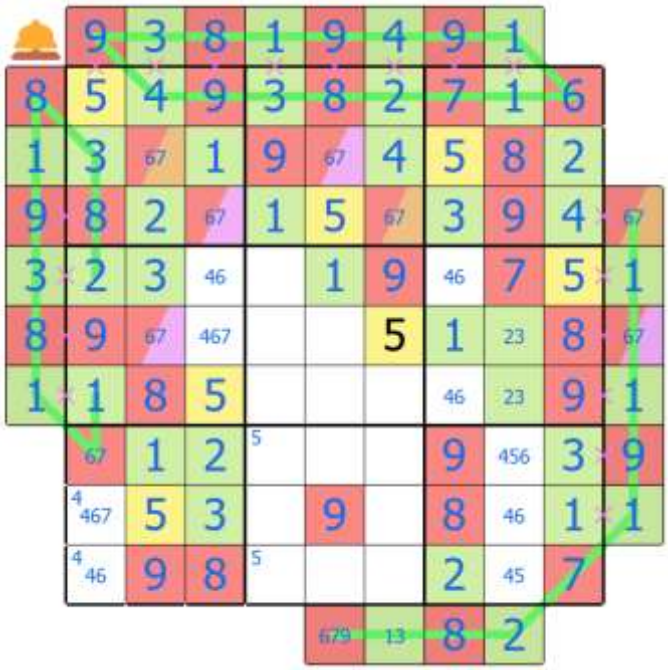
- Outside clues on right and bottom of grid can be trimmed. R10C8 can't be 1 as 1 is in position 9 and 9 is not available in the column. R10C7 can only be 8, as 6 no longer valid, and 7 and 9 are in positions 3 and 9 which are not available in the column
- 8 in column 7 isn't in position 8 by numbered room, placing 8 in box 3



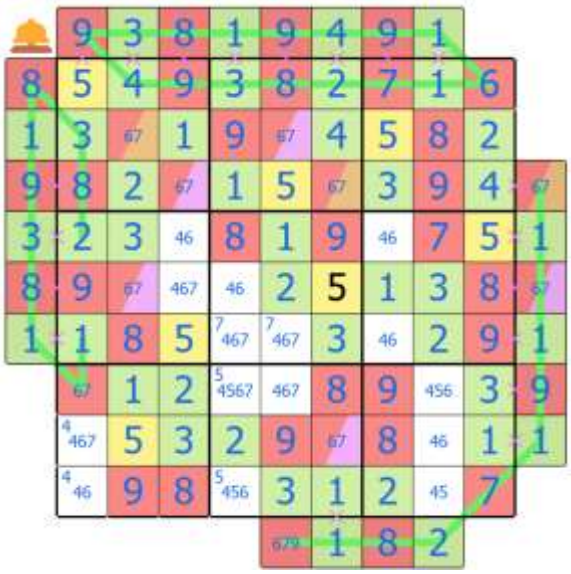
- 8 also not in R9C7 by numbered room, so it R8C7 placing a 2 and a 5 into column 7
- Leaves 146 triple in column 7 box 6, making R4C9 a 5, indexing a 1 into R4C5
- Places 1 in box 9



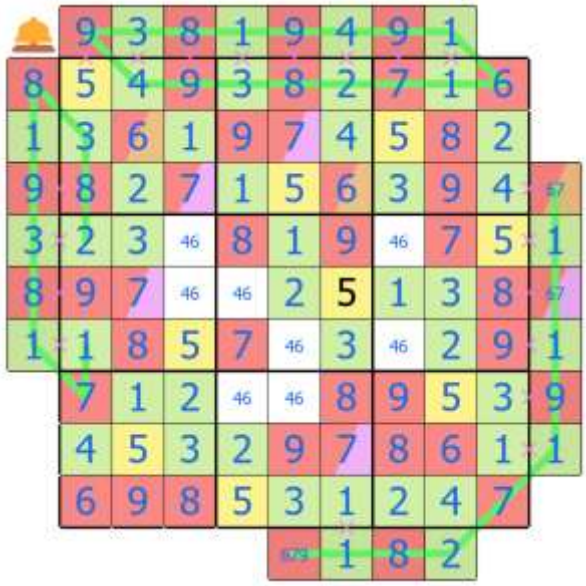
- 1 can be placed in box 8, then 3 in column 7



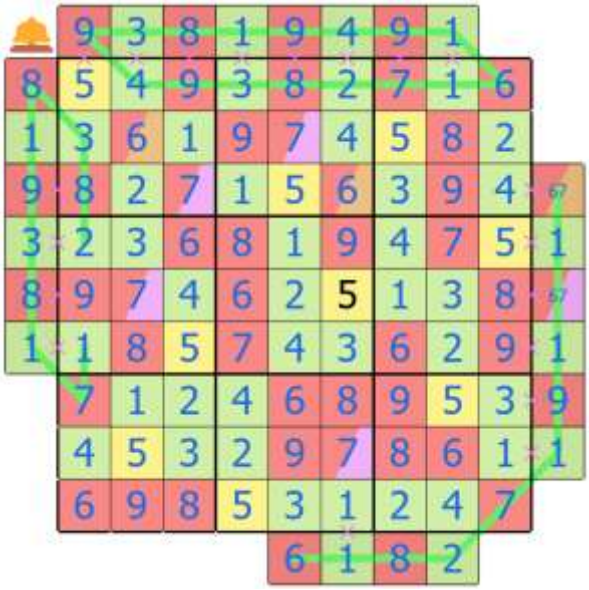
- Various sudoku follows, leaving behind some unresolved 467s



- 2 in column 8 is in position 4 so R9C8 is a 4



- C5 clue is indexing a high digit into position 3, so R7C5 is a 6 resolving the rest of the grid


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