Angle Brackets – Full Solution Guide

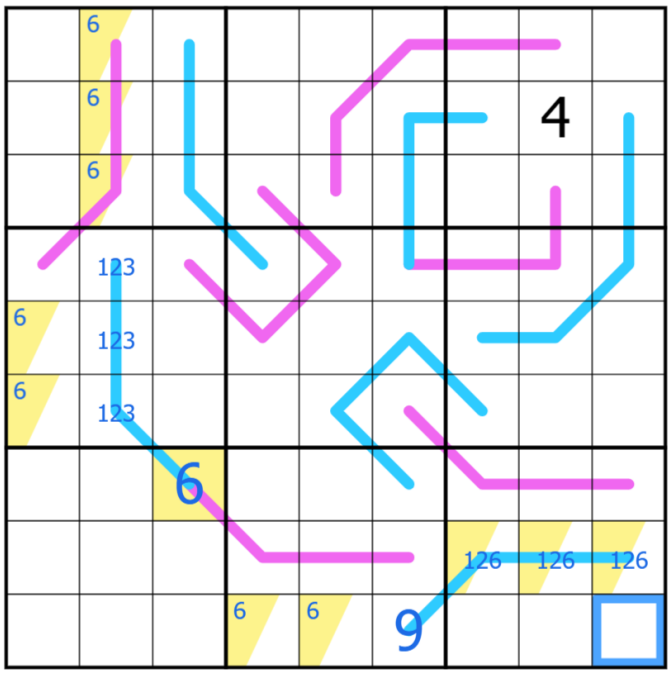
This is a full solution guide to my puzzle *Angle Brackets*, and so spoilers are ahead.

Rules

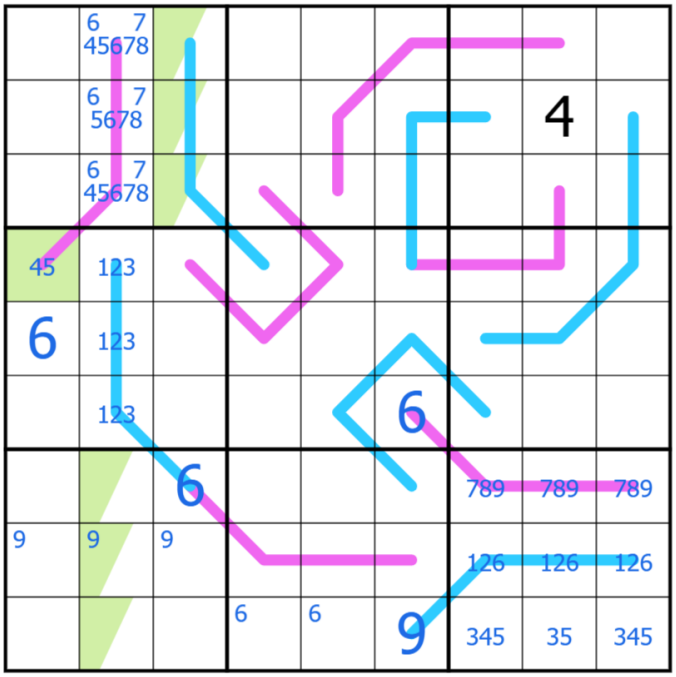
- Normal sudoku rules apply: Place the digits 1 to 9 once each in every row, column and 3x3 box
- **Renban**: A magenta renban line must contain a non-repeating set of consecutive digits in any order
- **Region Sum Line**: Box borders divide a blue line into segments which have the same sum

Solve Path

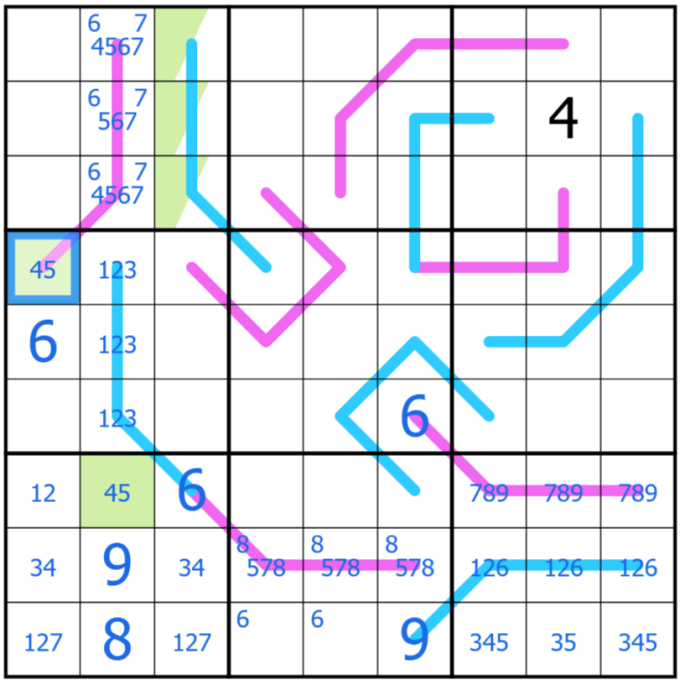
- Where is R7C3 in row 8? It can't repeat on its own renban, so it must be in box 9. Where is this digit in column 2. It can't repeat on its own region sum line as the other digits would need to sum to 0, so it must be in box 1
- This digit needs to be the sum of three digits, but also part of a 3 cell sum to a single digit, hence it is 6, giving a 123 triple in box 4, a 126 triple in box 9, making R9C6 a 9



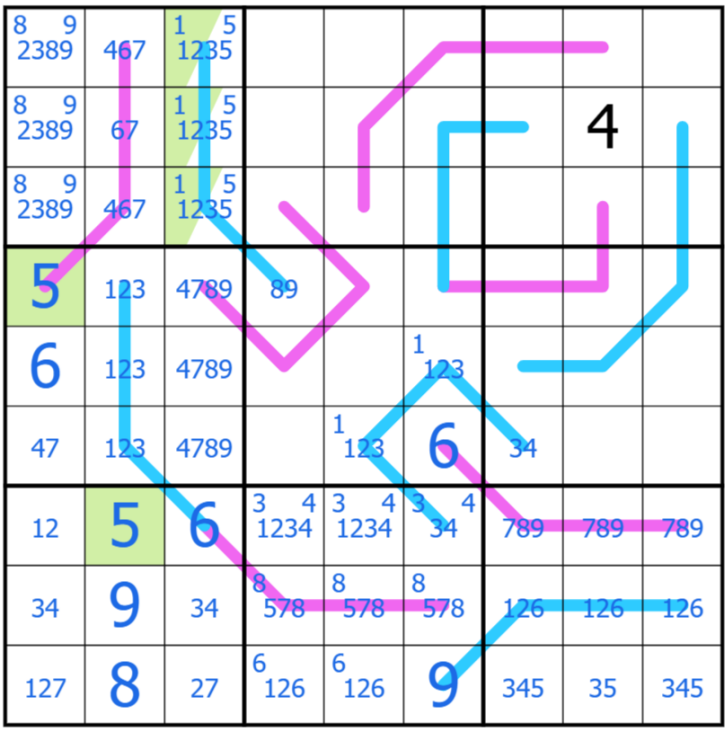
- The 9 in R9C6 must be on the renban in box 9, making this a 789 triple and R6C6 a 6
- 9 can be pencilmarked into row 8 in box 7



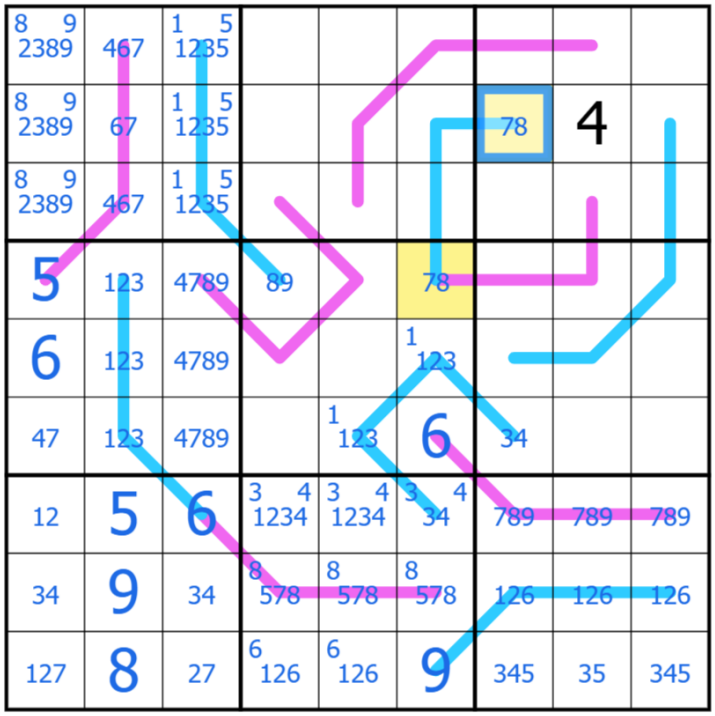
- Where is R4C1 in box 1. It can't repeat on its own renban so it is placed onto the region sum line. By the region sum line this digit is no higher than 6, and by what it sees in box 4 it is from 45
- This makes the renban in box 1 either 4567 or 5678. This allows 9 to be placed in column 2
- R4C1 in box 7 can't be in row 9, as this sees a 345 triple, so it must be in row 7
- R9C2 by sudoku is from 78. The renban in box 1 always contains a 7 pointing at R9C2, making this 8
- 8 is placed onto the renban in box 8, making the remaining renban digits in box 8 a 578 triple



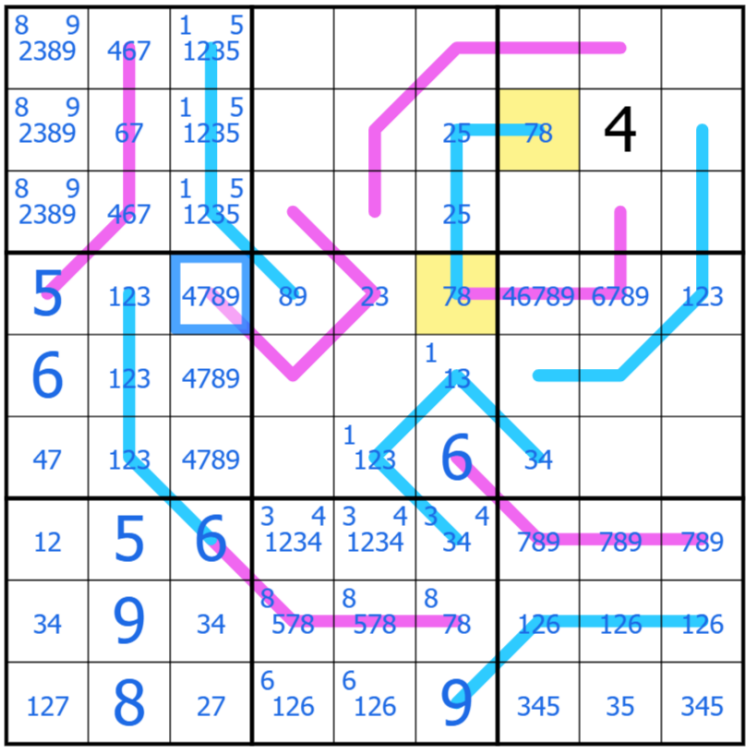
- A 34 pair in row 8 makes R7C2 a 5, and this propagates to R4C1 and the region sum line in box 1
- Hence the region sum line in box 1 is 125 or 135, and R4C4 is from 89
- We can pencilmark the remainder of boxes 7 and 8, and find that R7C6 is from 34, placing either 12 or 13 into box 5



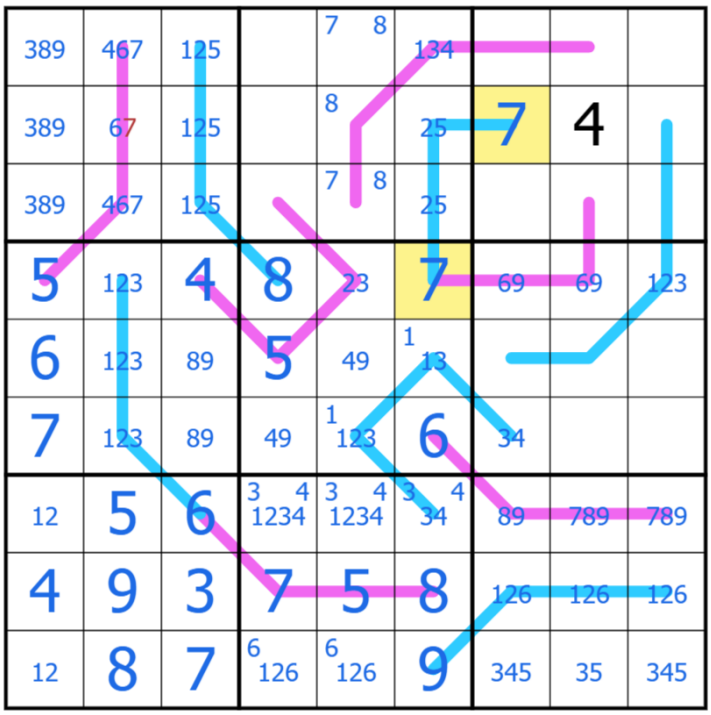
- By sudoku, R4C6 is from 3478. It can't be 3 or 4, as this would then place 5 digits into column 6 from 1234, hence this is from 78



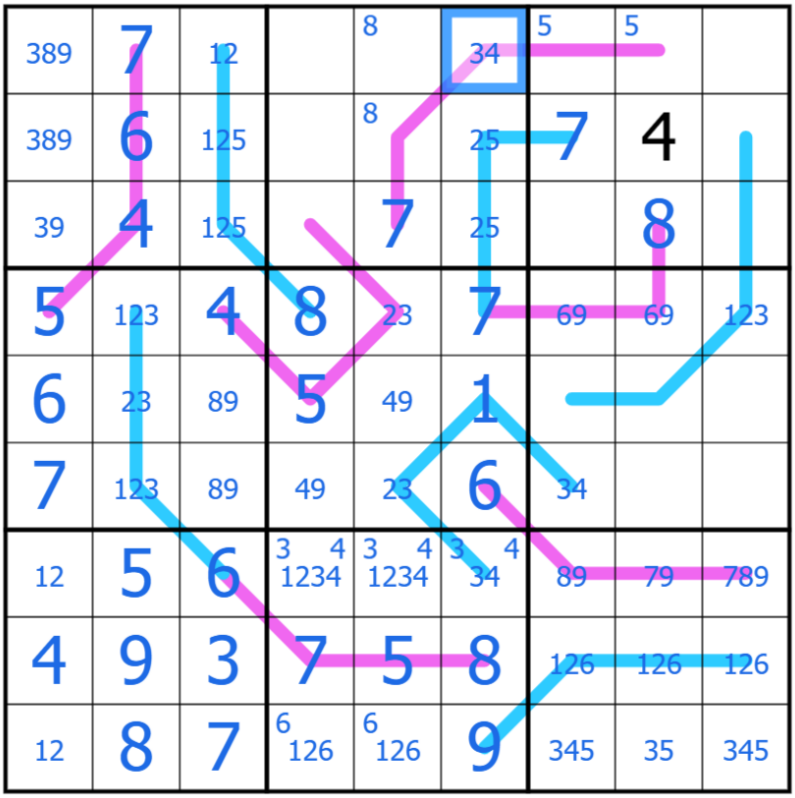
- The renban in row 4 now has a lowest digit as a 4 (if it were a 4567 renban). This leaves only 3 spots in row 4 for the digits 123, one of which is R4C5



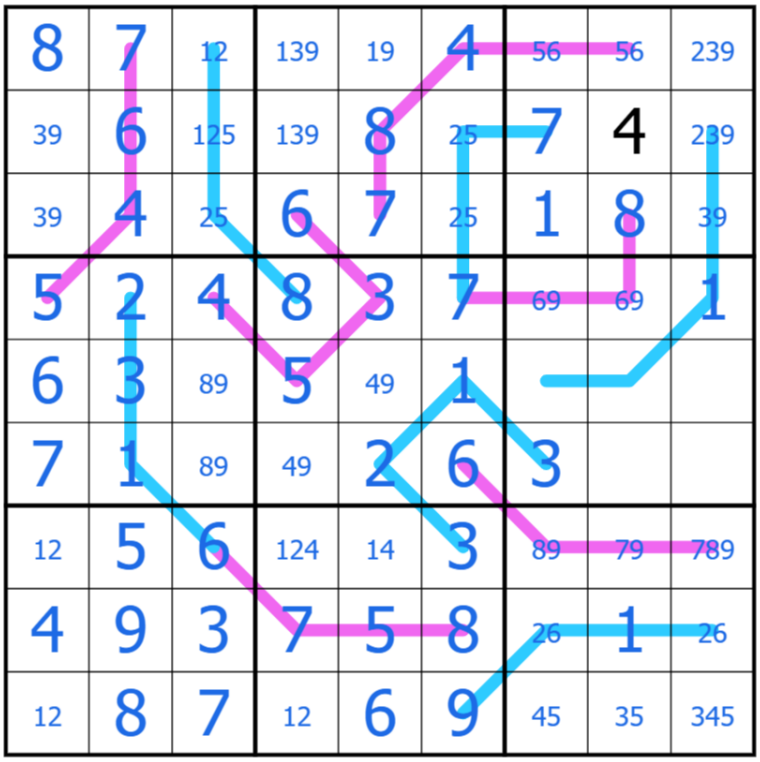
- 7 can't appear on a 4 cell renban with a 3, so R4C3 is now limited to only 4, this allows lots of sudoku to be done, making R4C6 a 7
- There is a 123 triple in box 5, making R5C4 a 5
- The region sum line in box 2 must be 25, as 16 is unavailable and 34 would break R7C6



- 7 and 8 can be pencilmarked in column 5, and one of them at least is on the renban in box 2. Making R1C5 a 7 forces 8 onto the renban, but then this would need a 7 on the renban with no available spots, so 7 is placed in R3C5
- 1 can't go on a 5 cell renban with a 7, so R1C6 is from 34, placing 1 in column 6



- If R1C6 were a 3, then a 4 would need to placed on the renban, but there would be no spots for a 4. Hence, R1C6 has to be a 4
- Lots of sudoku follows



- Sudoku cleans up a lot of what remains, but eventually you will find that the region sum line segment in box 6 sums to 11, which makes the segment in box 3 a 29 pair which resolves the remaining digits