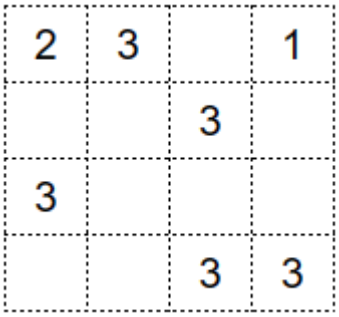
Slitherlink is a common puzzle type, sometimes known as Fences, in which a closed loop must be found. GM Puzzles gives the rules as follows:

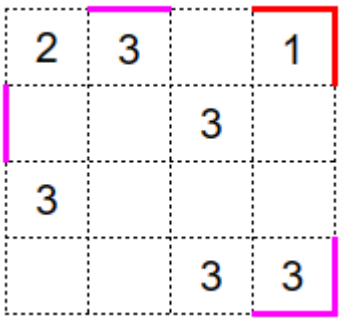
Draw a single, non-intersecting loop that only consists of horizontal and vertical segments between the dots. Numbers inside a cell indicate how many of the edges of that cell are part of the loop.

Starting on a Slitherlink can be tricky, but there are various clue patterns which can be useful introductions, which are outlined in detailed by Bram de Laat on his blog (https://puzzleparasite.blogspot.com/2011/11/slitherlink-pattern-guide_23.html)

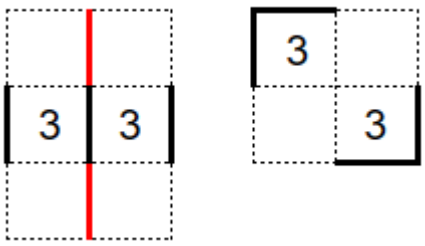
Here is an example puzzle where I will show you some of the more common starting points and continuation techniques.



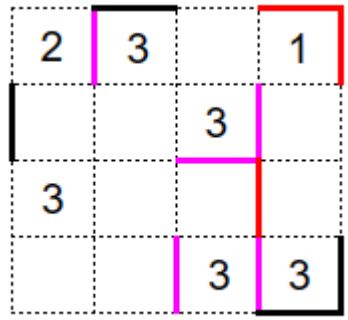

Corners can be excellent places to start. Any corner clue gives you some known lines or known non-lines, as below. I'm using red lines to show places the loop can't go, and black lines to show where the loop is. I've highlighted pink the new lines found, based on the 1, 2 and 3 corner clues. Note that the 2 corner clue gives loop segments adjacent to the clue cell instead of around it.




One of the key thought processes that I like to use is where the loop can or cannot turn. It cannot turn on the outside of 3 clues, as that would rule out two edges, and this gives two of the most useful slitherlink rules, using touching 3 clues.

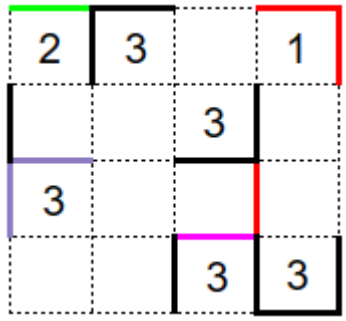



We have both these scenarios in this grid, leading us here.

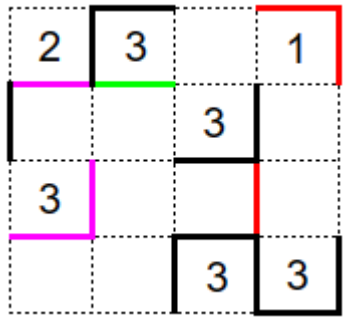



The next technique to discuss is considering where loop corners have been found, so that leaves two more edges which cannot be used as the loop does not branch out like this. The green edge highlighted shows you an impossible edge, which shows where the two edges must go, and the pink highlighted edge shows you the only remaining possible edge for this 3 clue now.

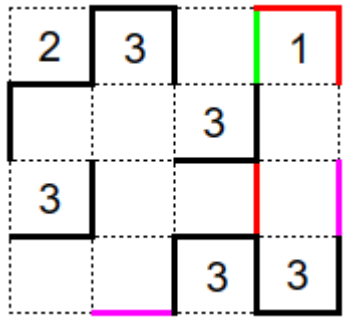
In the purple lines on the left, I'd also like to show you the inverse. The loop cannot travel across both purple lines, so one must be blank, and therefore the other two sides of this 3 clue must be in the loop.



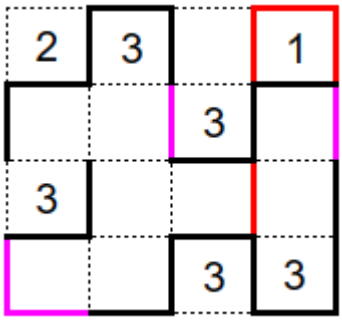

Filling in these deductions also shows us an impossible edge on the top 3, which will allow this clue to be finished too.




The bottom section of loop must continue on and can be continued to try to find the other sections of loop as shown. The top 1 clue's edge cannot be the green highlighted edge as it would have nowhere else to continue onto.




The 3 clue on the second row now only has one place for its final edge and the bottom section of loop only has one route on each side to join up to the rest of the loop.




There’s only one edge left now to complete our puzzle.