

Snake guide

GM Puzzles gives the instructions to Snake as follows:

Locate a snake (a 1-cell wide path) of unknown length in the grid, whose head and tail are given. The snake does not touch itself, even diagonally. Numbers outside the grid indicate the number of snake cells in that row/column.

Here is an example with walkthrough.

	2		4		4
	O				
1					
3					O

The edges are usually a good place to start in Snake. Since the snake is quite slow to turn, there has to be at least three in a row on the edge unless there is a start or an end. This means that the bottom row cannot go up as the remaining two wouldn't make any sense.

	2		4		4
	O				
1	x				
	x			x	x
3	x	x	x		O

I've also crossed off the bottom of the left hand column as the second of the two must touch the head/tail cell. Further, I've crossed out row 5, column 5 as this is the snake touching itself and not possible. I now have some cells in the right hand column since the remaining three cells must all be together.

	2		4		4
	O				
1	x				x
	x			x	x
3	x	x	x		O

I've added a cross in the 1 row since if that were in the snake, the cell to the left would be too. This allows us to create a large snake section in the top right of the grid using the rule about the snake not touching itself.

	2		4		4
	O				
1	x				x
	x			x	x
3	x	x	x		O

We can use the logic about the 1 again.

	2		4		4
	O				
1	x			x	x
	x			x	x
3	x	x	x		O

This allows us to use the 4 at the top to place another x in the 1 row.

	2		4		4
	O			x	x
1	x			x	x
	x			x	x
3	x	x	x		O

We can finish the puzzle now as the top row can only finish one way and the snake cannot touch itself.

	2		4		4
	O	x	x	x	x
	x	x			
1	x			x	x
	x			x	x
3	x	x	x		O