

A FEW HINTS on SOLVING THE SUDOKU PUZZLE.

The rules of the puzzle demand that each digit (1-9) is used only once (not repeated) in any row, column, or the 3x3 block in which it is situated. (This is a subset of nine squares bordered by thicker lines which I call a 'subnine').

AVOID DOUBLING

This leads us to adopt a strategy which avoids doubling up digits and which deduces the possible contents of an empty square by excluding the numbers that are in the associated row, column and subnine. In the example graphic given this means that the inquiry square cannot hold a 1,2,4,5,6,7,8 or else doubling will occur. Therefore the 'inquiry square' holds a 3 or a 9.

This process can be repeated for each square if you like to narrow down the possibilities, however there is another major strategy that can be employed either before, during or after taking this approach and which often simplifies matters!

ENSURE INCLUSION

The rules require that each number appears at least once in each row, column and subnine which allows us to look at the puzzle from the point of view of trying to find out the possible location of a particular number in a particular row. To illustrate this look again at the example graphic. The middle subnine (the nine squares in the very centre) does not contain the digit 9 but must do so. This missing 9 cannot appear in the middle row of that subnine or it will clash with the 9 that is in the same row in the subnine to the left, nor can it appear in the middle column as there is already a 9 in that column. This tells us that the 9 will appear in one of the empty squares of the left column, either above or below the 5.

SUDOKU

No. 1111

Level of Difficulty: 3

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

SUDOKU

No. 1111

Level of Difficulty: 3

				not 9 already in subnine	4		8
			6	9	not 9 already in subnine	2	
6		4			5		3
5					8	1	
9		1	5	not 9 already in row!	8	7	6
	4			7	6		
		9	8	6	not 9 already in row!		1
	5	2	3 or 9 if 9 is taken this leaves 3	1	In this column this is the only place 9 fits		4
8	1				7		9

This may seem no great leap forward until you consider that the 'inquiry square' in our first example, which we deduced would contain a 3 or a 9, is in the same column. There will be only one 9 in that column, it will be above or below the 5 and it is no longer a possibility for the 'inquiry square' - which now must be 3.

Consider the subnine in which the inquiry square sits. It does not have a 9 in it yet. Have a look at the 3 rows that pass through that subnine - you will notice that two of those rows contain a 9. There is only one logical place for 9 to occupy in this subnine.... I will leave the rest to you.