

How to do Sudoku Puzzles



Although Sudoku puzzles are made up of numbers, there is no maths (math) involved. You must use logic to work out where the numbers go, and that is what makes the puzzles fun. Every puzzle is different, and once you get the hang of it, you may find yourself wanting to do more and more!

Let's start with a nice easy puzzle made up with 4 mini-grids of 4 squares each. At Activity Village these puzzles are RED and look like this:

3	1		
	2		
		2	
		1	3

To do this Sudoku you must make every column, row and mini-grid contain the numbers 1, 2, 3 and 4 - one of each. There is only one way to finish each puzzle, and if you think carefully you will be able to work out the answer.

3	1	?	
	2	?	
		2	
		1	3

Let's start by looking at the third column. We already have the numbers 1 and 2 in that column, so we need to replace the two question-marks with a 3 and a 4. We can't put a 3 in the top square because there is already a 3 in that row (highlighted in yellow). So the top square must be a 4, and the next square must be a 3. That's a good start!

3	1	4	?
	2	3	
		2	
		1	3

Now we need to work out what goes in the top corner. If you look across the top row, you will quickly see that you need to fill that square with a 2.



3	1	4	2
	2	3	
	?	2	
	?	1	3

What next? We need to replace the question-marks with a 3 and a 4. If you look along the bottom row you will see a 3, so the bottom question-mark MUST be the 4. Once we know that, it is easy to see that the bottom left corner should be a 2, so I will fill that in as well.

3	1	4	2
	2	3	?
?	3	2	
2	4	1	3

Remember that each mini-grid must have the numbers 1, 2, 3 and 4 in them too. Can you see that each of the question-marks in this Sudoku now have to be replaced by 1?

There are now only 2 empty squares left, and you can easily see that they should both have a 4. You have done your first Sudoku!

?					6
?	3		5		4
?				5	2
3	5				
4		3		6	
6					

Now let's try a 6 x 6 puzzle, this time placing the numbers 1 to 6 in every column, row and mini-grid - each number only once. You can see that we need to place a 1, 2 and 5 in the first column. Look at the blue highlighted numbers. Can you work out why the bottom number can only be a 1? Then the middle number must be a 2 and the top number a 5.

5					6
2	3		5		4
1				5	2
3	5				
4		3		6	
6					

Here is another trick. Look at the highlighted squares. In the top left mini-grid, the 5 is in the left column. In the middle left mini-grid, the 5 is in the middle column. In the bottom left mini-grid, the 5 MUST go in the right column. We call these "triplets".

5					6
2	3		5		4
1				5	2
3	5				
4		3		6	
6		5			!!

Now look at the right-hand side of the puzzle. This is another triplet. Again, we have two out of the three 5s in position. The final 5 must go in the right column. It can't go in the bottom row - can you see why?

5					6
2	3		5		4
1				5	2
3	5				
4		3		6	5
6		5			

See if you can do the rest of the puzzle yourself. Here is a clue - look at the far right column next!

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



Here is a 9 x 9 puzzle. Now each column, row and mini-grid must contain the numbers 1 through 9 (each number only once).

When you are doing the large Sudoku puzzles, it is helpful to start in the same way - by searching for “triplets” or sets of three. Look at the yellow 5s. The bottom left mini-grid only has one safe square for a 5.

Now look at the orange 6s. In the bottom right mini-grid, the 6 must go in the middle row, in one of two positions. But if you look up you can see a 6 in the left square (highlighted blue), so you must put the 6 in the square on the right.

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

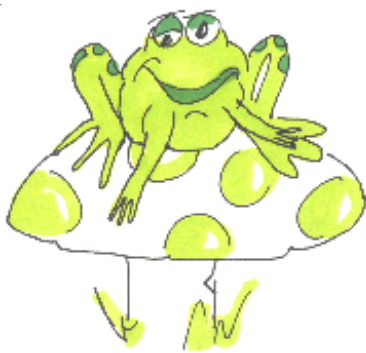
Sometimes you don't know for certain which square to put a number in, and must look for more clues. Don't guess! You can find yourself in a horrible mess if you do! If you are not absolutely sure of a number, keep looking for more clues.

You might find it helpful to make notes by using a pencil to write small numbers which can be rubbed out (erased) later. In this case, you know by looking at the triplet of 7s that one of these two highlighted boxes in the lower mini-grid must have a 7. You will do this more as the puzzles get harder!

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

Another technique you can use is to look at a square and try to decide what numbers can go into it by eliminating the possibilities.

Sometimes there will be more than one number which will fit, in which case use a pencil to write them in, to remind you later. If you are lucky and have picked well, you may find that there is only one possible number. If you look at the yellow square on the left and check each row and column, you will see that this square can only be a 6.



Remember that all Sudoku puzzles are different and don't be too frustrated if you get stuck on one. If you leave it for a while and come back to it later, you will probably see a clue that you missed earlier! Try another puzzle in the meantime, if you want.

Above all, have fun and get your friends and family to try Sudoku puzzles too.