

DRAFT USER MANUAL

RULES AND REGULATIONS OF THE GAME

A standard Sudoku puzzle consists of a grid of 9 blocks. Each block contains 9 boxes arranged in 3 rows and 3 columns.

The Basic Rules of Sudoku:

- There is only one valid solution to each Sudoku puzzle. The only way the puzzle can be considered solved correctly is when all 81 boxes contain numbers and the other Sudoku rules have been followed.
- When you start a game of Sudoku, some blocks will be pre-filled for you. You cannot change these numbers in the course of the game.
- Each column must contain all of the numbers 1 through 9 and no two numbers in the same column of a Sudoku puzzle can be the same.
- Each row must contain all of the numbers 1 through 9 and no two numbers in the same row of a Sudoku puzzle can be the same.
- Each block must contain all of the numbers 1 through 9 and no two numbers in the same block of a Sudoku puzzle can be the same.

A Valid Sudoku may looks as follows

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

Introduction

When user starts the game a window appears which consists of options

- 1) New Game
- 2) Quit

By clicking on New Game a new window appears which allows user to select the SUDOKU of different difficulty level i.e., A Window consisting of options

- 1) EASY
- 2) MEDIUM
- 3) HARD

Appears and by selecting the desired level he can

see a window asking to select a game(There are 4 games in each level).After he selects the game he can proceed to play the game.

When the game window appears he can play the game according to the rules mentioned above.

Game window might typically look like

		2	1					3	0
6				8		2			1
		4	7			6	1		2
	4				2	7		1	3
		6	3		7				4
5	2				6			4	5
	6			3	4			7	6
9							8	2	7
				5			3		8
									9

If You Want To Verify First click verify and then select the box.If you want enter an input directly By Selecting the box you can enter.
 If You Want delete a Particular Number you entered Press 0,If you want Solution Press ANSWER below

You cannot change the numbers in the boxes which are blue in colour(because these blue boxes constitute to a Question).

He can enter the number into a particular box by clicking on the box then the box turns yellow indicating the number you are going to enter will appear in that box. If you wish to delete the entry you entered before click on the box and press 0. Then the number will be deleted. You can enter the number by clicking on the number you want to enter. These keys will present to the right side of the Sudoku as shown above.

While playing the game he has an option to check whether the number entered by him is correct or not by clicking VERIFY (Which is present on the game window). By clicking on the VERIFY Box it turns to GREY colour indicating that verify option has been activated. Then he should select the box which he want to verify. By clicking on the box he want to check if it turns GREEN colour it indicates the entered option is correct else if it is wrong box turns RED colour indicating it is wrong (Verification is done at the time of present status of play but compared to the final answer. Final answer may have different number in that box). After 1 sec both colour of box and Verify box becomes Normal colour.

As from the screenshot above you can see the HINT button on the window. By clicking in the Hint box it turns to GREY colour indicating it is activated. After clicking on the hint button you should press on the box which you want hint. By doing so the a answer number in the box will appear and the box turns blue colour indicating that it has now become a part of the question. So now you cannot change that number from that time. After this HINT button will turn normal in colour indicating it is now not active.

ANSWER option is also available on the window screen. If you wish to know the answer of the SUDOKU you are playing you can do it by clicking the ANSWER button available on the screen. After you click the answer button answer for the Sudoku will appear before you and after 1 min of clicking answer the Sudoku game will be closed.

A few screen shots of the game are shown below:

Game

3	1	7	9	2	8	4	6	5	0
6	5	9	3	4	7	2	1	8	1
4	8	2	1	5	6	3	7	9	2
5	2	1	6	9	4	7	8	3	3
7	3	4	8	1	2	9	5	6	4
9	6	8	7	3	5	1	2	4	5
2	7	6	4	8	9	5	3	1	6
1	9	5	2	6	3	8	4	7	7
8	4	3	5	7	1	6	9	2	8
									9

VERIFY

Hint

If You Want To Verify First click verify and
 then select the box.If you want enter an
 input directly By Selecting the box you can enter.
 If You Want delete a Particular Number you entered
 Press 0,If you want Solution Press ANSWER below

ANSWER

Game

	1		9		8	4		5	0
	5	9				2	1		1
1				5	6	3	7		2
		1			4				3
	3			1			5		4
9		8		3		5			5
	7							1	6
						8			7
	4		5	7					8
									9

VERIFY

Hint

If You Want To Verify First click verify and then select the box.If you want enter an input directly By Selecting the box you can enter.
If You Want delete a Particular Number you entered Press 0,If you want Solution Press ANSWER below

ANSWER

Game

	1		9		8	4		5	0
	5	9				2	1		1
1				5	6	3	7		2
		1							3
	3			1			5		4
9		8		3		5			5
	7							1	6
						8			7
	4		5	7					8
									9

VERIFY

Hint

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ANSWER

A Simple Method of Solving the Sudoku is mentioned below.

Crosshatching - finding squares for numbers.

The obvious way to solve a sudoku puzzle is to find the right numbers to go in the squares. However the best way to start is the other way round - finding the right squares to hold the numbers.

This uses a technique called 'crosshatching', which only takes a couple of minutes to learn. It can solve many 'easy' rated puzzles on its own.

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

Crosshatching works in boxes (the 3 X 3 square subdivisions of the grid). Look at the top-left box of our sample puzzle (outlined in blue). It has five empty squares. All the numbers from 1 to 9 must appear in the box, so the missing numbers are 1,2,3,5 and 9.

We'll ignore 1 for a moment (because it doesn't provided a good example!), and see if we can work out which square the missing 2 will go into.

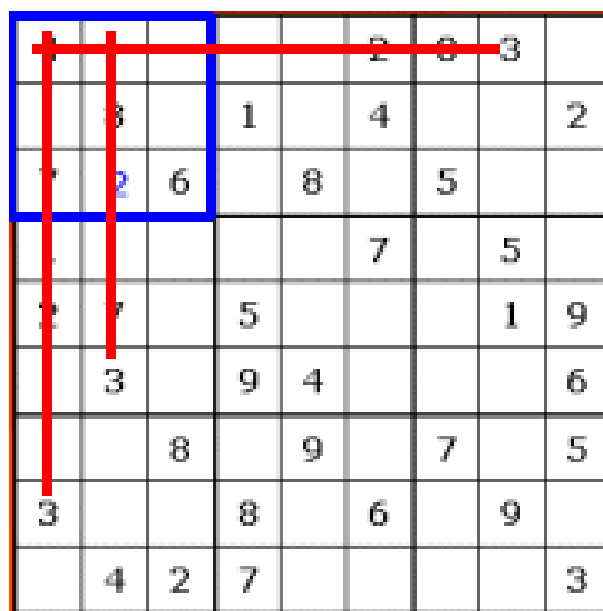
To do this, we'll use the fact that a number can only appear once in any row or column. We start by looking across the rows that run through this box, to see if any of them already contain a 2. Here's the result:

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

Bingo! The first two rows already contain 2s, which means that squares in those rows can't possibly

contain the 2 for this box. That's all we need to know, because the third row only has one empty square, so that must be the home for the 2.

Now let's see if we can place the 3 for this box. This time we end up checking the columns that run down through the box, as well as the rows that run across it:



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

Again, we get a result first time - there's only one empty square that the 3 can possibly go into. You can see from this example why it's called 'crosshatching' - the lines from rows and columns outside the square criss-cross each other.

Of course you don't always get a result first time. Here's what happens when we try to place the 5:

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

There's only one 5 already in the rows and columns that run through this box. That leaves three empty squares as possible homes for the 5. For the time being, this box's 5 (and its 1 and 9) have to remain unsolved.

Now we move on to the next box:

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

Here we're crosshatching for 3, the first missing number in this box. Note how we treat the 3 we placed in the first box as if it had been pre-printed on the puzzle. We still can't place this box's 3 though, so we'll move on to the next missing number (5), and so on.

◊ In sudoku, accuracy is essential. If the 3 in the first box is wrong, we'll be starting a chain of errors that may prove impossible to unravel. Only place a number when you can prove, logically, that it belongs there. An important factor in crosshatching (and sudoku in general) is that the more numbers you place, the more likely you are to place others - including ones you couldn't place earlier.

Placing numbers in the second box may well make it possible to go back and place missing numbers in the first. It's good to get into the habit of looking backwards as well as forwards, re-checking whether the numbers you've just placed have made numbers placeable elsewhere in the puzzle.

There are many processes this is little bit easier process , it may not be easy in all cases.

WEB REFERENCE :- <http://www.paulspages.co.uk/sudok>

HOPE YOU ALL ENJOY THE
GAME!!!!!!