



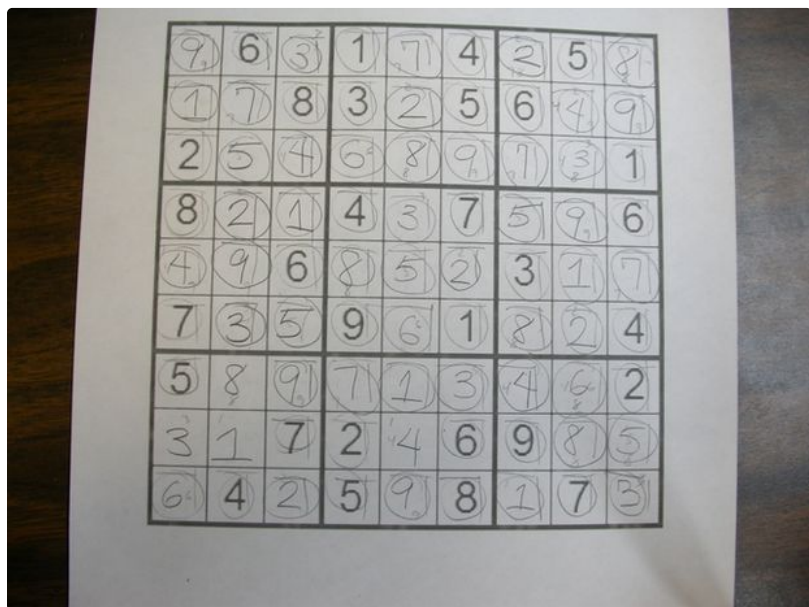
Solve Sudoku (Without Even Thinking!)

by delgaudm

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This instructable provides step by step instructions to complete a Sudoku puzzle by simple process of elimination.

One of the things I that drove me crazy about Sudoku is how difficult it is to return to a puzzle if you get interrupted. This system allows you to walk away from a puzzle at any time and return exactly where you left off.

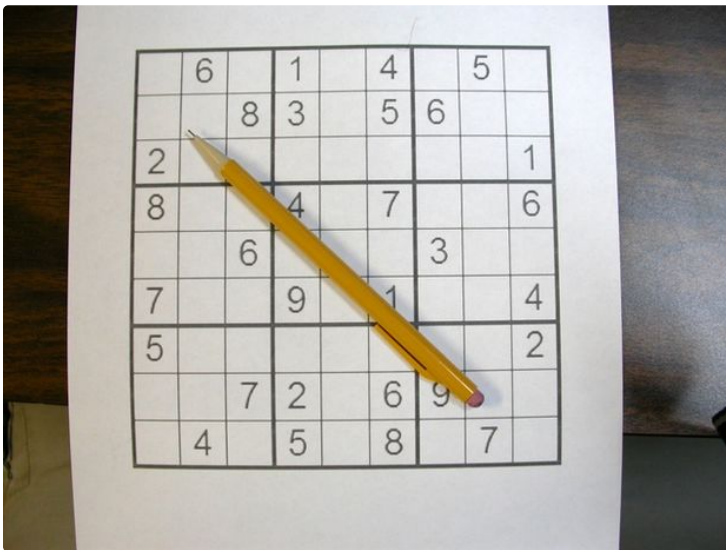


	6		1		4		5	
		8	3		5	6		
2								1
8			4		7			6
		6				3		
7			9		1			4
5								2
		7	2		6	9		
	4		5		8		7	

Step 1: What You Need to Begin

You need:

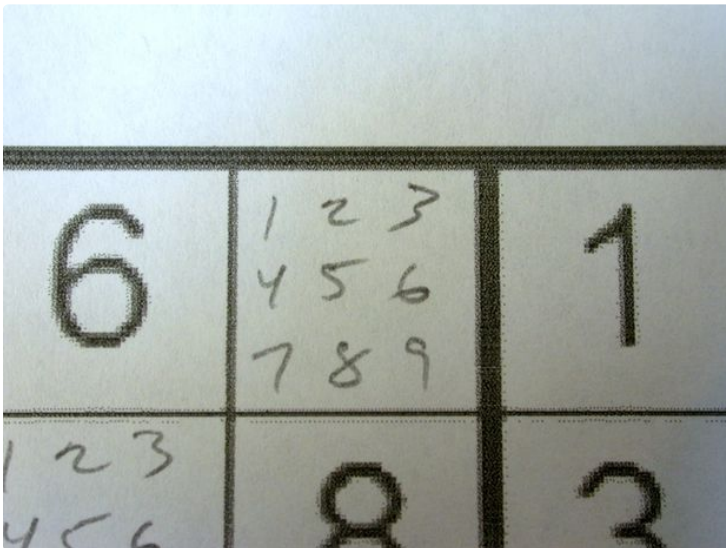
1. A sudoku puzzle. I enlarged this one (which was the puzzle that appeared on Sudoku.com on July 8, 2006.) to make photography easier. I find this system works better on larger puzzles.
2. A pencil, Not a pen. A pencil.
3. An eraser.



Step 2: Fill in the "Missing Grid"

You see, a Sudoku puzzle is missing a grid. Once you put in this grid, it is sooo much easier.

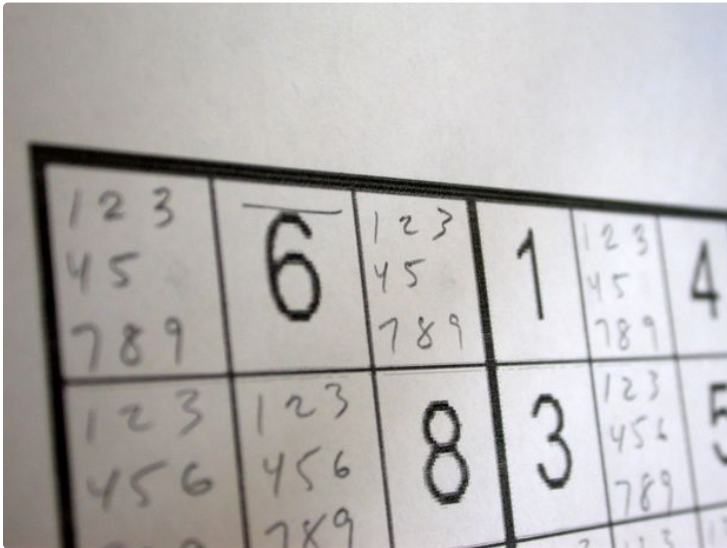
Enter the numbers 1 through 9 in a "tic-tac-toe" pattern in every blank box.



Step 3: Erase "Across"

For each number that is preprinted in the puzzle, you will start erasing that number from the appropriate grids you just wrote in.

So the first number (in the upper right corner) is a "6". Erase every other "6" in that row. Once you have completed the erasing, draw a line across the top of the number to indicate that you have cleared out that line.



Step 4: Erase Down

Now, for that same number "6", erase the corresponding "6"'s in every box in the same column. Once you have completed erasing, draw a line down the edge of the number to indicate that you have completed this step.

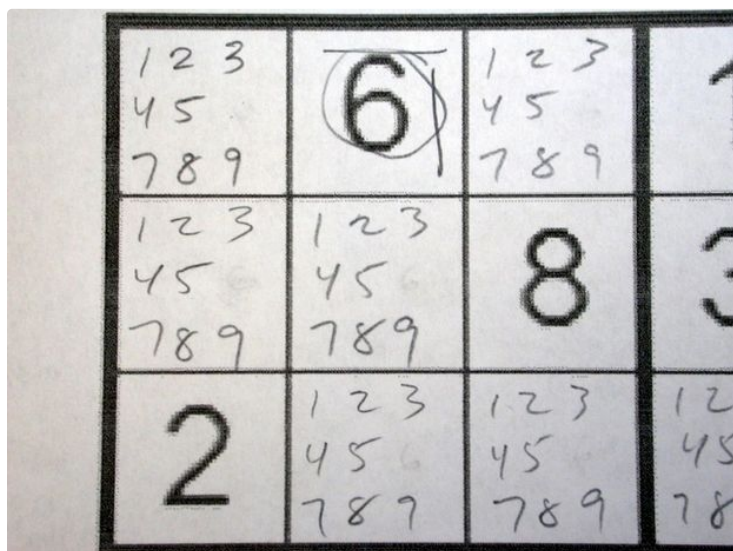


Step 5: Erase "All Around"

Ok, last step for the first number "6" Erase all the "6"s in the same quadrant. Then draw a circle around the number to indicate you have completed this step.

Now you have eliminated all the sixes from all the other blocks. That indicates that a Six cannot appear in any of those blocks.

Keep going, repeat those same three steps for all the other pre-printed numbers in the puzzle.

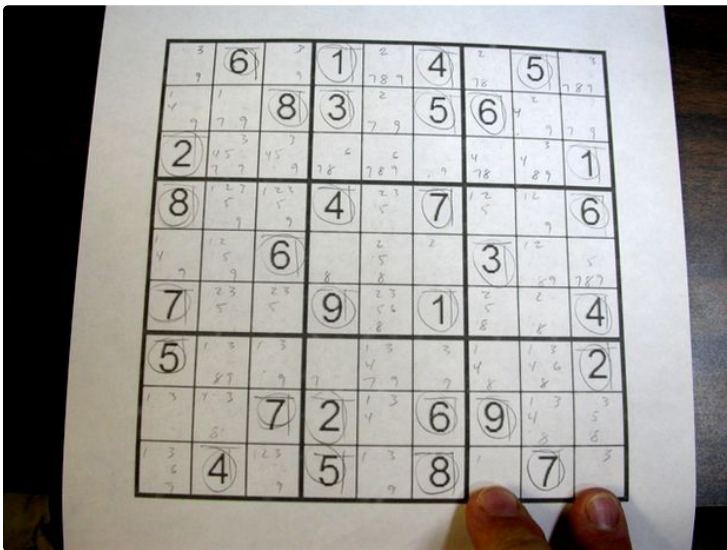


Step 6: Repeat for All the Pre-printed Numbers

Just repeat those three steps for each number that was printed in the puzzle. The purpose of the down, across, and circle marks on each number is to provide for any interruption that may occur when solving the puzzle. By drawing those lines you can always tell exactly where you left off. If the number has all three marks, you can be sure that all of the

corresponding numbers have been eliminated from the puzzle. You can effectively forget about that block now.

Let's see what the result of all that erasing was.



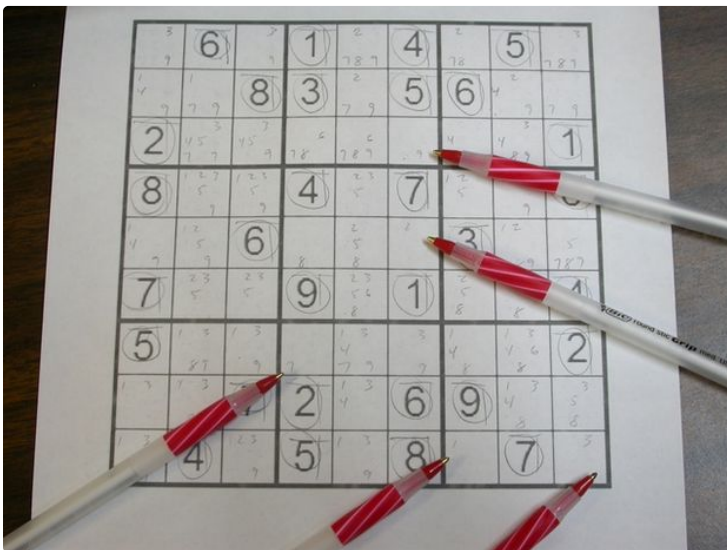
Step 7: Locate Answers

By process of elimination you will have done so much erasing in some blocks that only one number is left. Guess what. That is the answer for that block. Congratulate yourself.

In this image, the red pen points point to all the answers that were provided just by doing the initial erasing.

We have not yet begun to think!

Write that number large in the block, then treat it like a preprinted number. Eliminate all the across, down and around numbers as you have already done so many times before.



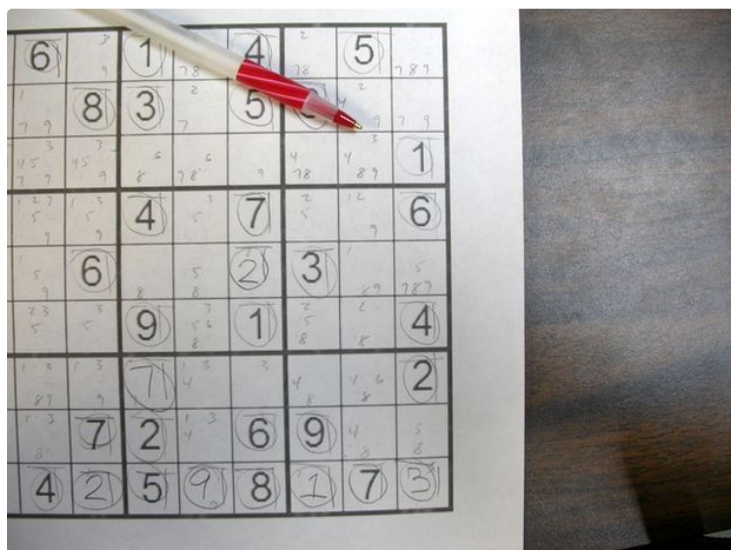
Step 8: Other Kinds of Eliminations.

You won't always be so lucky. Not every time will you end up erasing all the numbers but one in a block. If that is the case, then you peruse the puzzle to find eliminations.

First look down each column. If you find a number that only appears in one block in a column. That is the answer for that block.

In this picture, the pen point points to a three. That is the only three in that column, so that must be where it goes.

Write it large, then treat it like a pre-printed number. See ... this isn't thinking. This is EASY.



Step 9: Look Around a Quadrant.

I know, they aren't really quadrants, but you know what I mean, don't you?

If you've looked across the columns, and across the rows and there are all duplicates, then look in the group. If there is one number in the group that only appears in one block, then it's your answer.

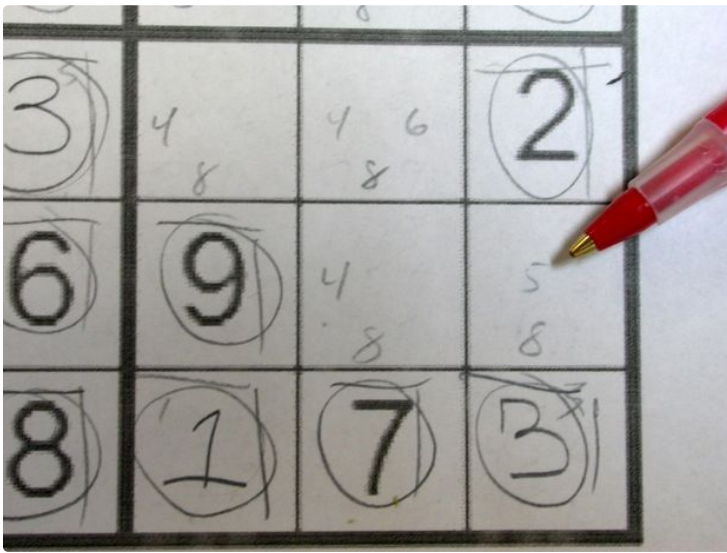
See... There is no guessing in Sudoku. One of these

situations has to occur. You just need to find them.

IN this picture the 5 only appears in one block in the group. It goes there.

Write it big, then treat it like a pre-printed number.

See where we're going, here?



Step 10: Lather, Rinse Repeat.

Eventually, you will find all those lonely numbers in thier rows, columns or groups.

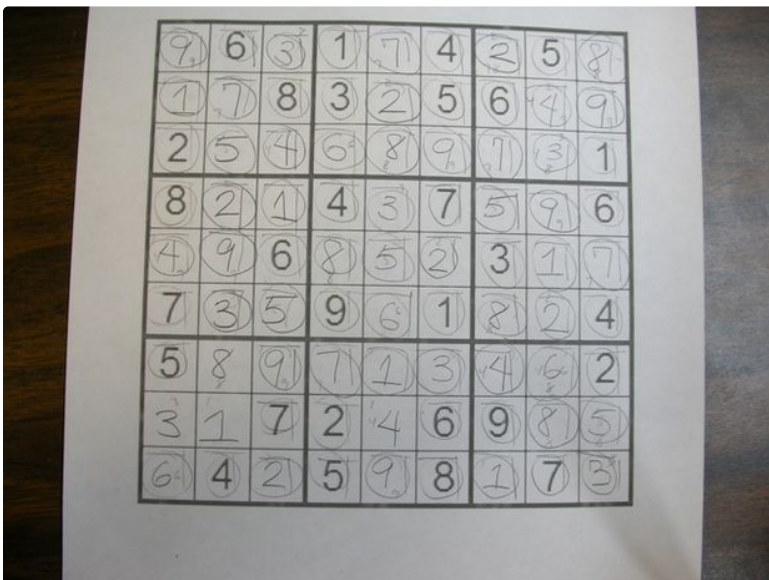
Remember to draw those lines and circles in case you get interrupted.

Eventually you will solve the puzzle.

Compare our solution to the "Official Solution" found on the Sudoku.com site. See? A perfect match.

And you thought Sudoku was hard.

It's so easy, you don't even have to think!



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

I did try it, so now I have to take back what I said about still needing to guess. I tried the hardest

puzzles I could find, and the worst trouble I had was having to return to classic solving methods a few times. At one point I made a mistake. Don't know if it was because of the option mapping, but had no trouble getting back on track.

This is still tedious, but that can be minimized by solving as much with traditional methods as you can, and only then start mapping solutions. I do want to point out that sudoku programs have tools for this very aid, and that it is considered an aid, not cheating. It's like setting the program to highlight a given number. Helps you see what to do easier, that's all.

First, the word you're looking for is sector.

Second, all this writing and erasing is time consuming, but will get you to the end of most puzzles. It's a good way of using what every newbie tries at first, only to end up with a screaming headache. But you made great sense of it. Nicely done.

Third, as anyone who has been through an entire sudoku puzzle book can tell you, there is guessing in sudoku, and it definitely helps to have rules for that once you get to the really hard puzzles.

So at some point you will want to leave this method behind, grab a pen **and** pencil, and get to guessing, because the really hard ones give you no choice but to guess. Using a pen makes it easier not to miss the entries you make (when I used a pencil, I kept missing mine and it drove me crazy), and when you need to guess you can reduce each number to a small, unique section of the number. 8, for instance, could be a tiny x in the middle of the square. Make note of where you start and the number you wrote on the puzzle's edge. If you make it small, you won't make a mess of the puzzle by being wrong. And once you find you are wrong, you can enter the alternatives you now know are correct.

Now that you have wrong marks, using the pen to guess will only confuse you. Guess with the pencil, and bear in mind that you can guess as much as three numbers at a time under the right conditions, and it will still be an either/or option.



Took ages but I can confirm the method works for a hard sudoku. Very logical way of solving a sudoku, but probably not the most efficient way.

Method only for easy ones.



ya

This method is very thorough and if you follow it exactly, you will be able to solve an easy sudoku puzzle. However, it requires a lot of time to write down every possibility in every square. I think it might be overkill for an easy puzzle. Most easy sudokus can be solved just by looking. Here's a video that shows you how to solve easy sudoku puzzles.



this is genral logic, but i want formulae for solve easily.....!!!



<http://www.ams.org/notices/200904/rtx090400460p.pdf>

Certainly a decent way to solve simple puzzles, but make no mistake - solving one sudoku puzzle does not mean solving them all. The above Sudoku puzzle is classified as easy; I can finish it in under a minute without even writing down possibilities.

This basic elimination method is generally the last thing you would be doing for intermediate and advanced puzzles. The hardest Sudoku puzzles require a good amount of logical thinking, observation, and occasionally memory.

I'd be more than happy to create an advanced puzzle for anyone interested to see if the above method can even fill up a single column, row, or box.

GENIUS!

I'm new to Sudoku. The tip about the circles, vertical and horizontal bars is a great help. Thanks!

- Why don't you make some amazing puzzle game by yourself easily within days? and make some quick money from it.: <http://goo.gl/wHB0A4>



I solved it in 6 minutes.

- I appreciate all of your work, but this makes the task way more complicated now. Plus, this isn't a tip for playing. Its just another kind of cheating, right?



tHIS STRATEGY IS WELL USED FOR HARD SUDOKU'S . tHIS PIECE YOU GIVEN I SOLVED IT IN 10 MINUTES WITHOUT USING ANY ENCIL . AND I AM NOT A PRO EVEN .



tHIS STRATEGY IS WELL USED FOR HARD SUDOKU'S . tHIS PIECE YOU GIVEN I SOLVED IT IN 10 MINUTES WITHOUT USING ANY ENCIL . AND I AM NOT A PRO EVEN .

- This is brilliant strategy, but won't it take like forever to finish ?
- Nice but too slow - with thinking is much faster...

btw thanks 4 share



Guys, we just created our sudoku app...the idea behind it was that most apps in the market provide poor quality puzzles with where each puzzle has more than one solution. However, we did our homework and have tested each puzzle that was included in the game. Hope you guys like it. Please support our android app. Thanks"True Sudoku–Truly one solution"

<https://play.google.com/store/apps/details?id=com....>



- Help me to answer this please. The red pen is wrong answer. Help me please. Thanks



- Here's the solution to your Sudoku problem. Hope this helps! =)



- Thank you so much for making my life easier.



I think it makes more sense to go without the eraser all together. This can be done by going along each row of the puzzle and filling in all possible 1's, then doing 2's, etc. until everything has all their possibilities filled in. This way you can also insert numbers that are the only possibility in that row as you go along.

Also if you have 2 squares in a column/row/box that can only be 2 numbers (ex. 2 squares that can only be a 4 or an 8), then all other squares in that column/row/box will not be a 4 or 8, even if they have those numbers in their possibilities. If you have 3 boxes with the same 2 possibilities then you done messed up somewhere. This works for 3 or more boxes as well, but then you need 3 or more numbers exclusive within those boxes.

As for speed, practice. I can do an easy puzzle in 2 or less minutes and an extreme in less than 8 because I practiced in basically all my free time for 3 or 4 months. You get used to all the tricks and patterns.

Best of luck to y'all.



thanks for the advice

this is bloody cheap trick you mentioned above huh..

- this is great. it made my mind explode like Chinese New Year. :)
- There are a few simple techniques to solve Sudoku and they are:
Last Digit - <http://www.livesudoku.com/en/tutorial-lastdigit.ph...>
Hidden Singles - <http://www.livesudoku.com/en/tutorial-hiddensingle...>
and Naked Singles - <http://www.livesudoku.com/en/tutorial-nakedsingle.php>
You also need to understand what boxes are (see image below)



I used dots for about a year and eventually gave it up. Not sure why anymore. I think the dots are more common in Europe. My personal challenge now is to do my solving with no jots whatsoever. I have worked my way up to the Nikoli X-treme book this way. I have to revert to jots about half the time in that book.

- Am I the only person who uses a "dot" system instead of numbers? The dots are so much easier to fit into the puzzle and easy to recognize. There are 9 squares. The squares on the left are 1,4,7; middle, 2,5,8; right, 3,6,9.

I agree that Sudoku is simple logic. So many people take one look and assume it's math related -- and they give up before trying. I am addicted to Sudoku. My husband bought me a Sudoku calendar. Each puzzle is past difficult and really taxes my brain.

Does anyone have tips on how to solve the extremely challenging one? I'm feeling stupid. ;-)

- Sudoku is simply a logic puzzle. If it's here, it's not there. May not be the fastest way, but I average 2.5-3.5 minutes on an easy puzzle. Just start with 1, find the first 1 and look across, look down, if there are two 1's in that column or row, and only one spot to put a 1 in the remaining block do so. When no easy option presents itself move on to the 2's, and repeat. Another thing to look for is say the top left block has a 1 in the top left, the top middle block is filled except the middle row across but no 1, and the top right block middle row is empty and the bottom right square is empty. You know the middle block has to be the middle row somewhere, but not where. That said you can fill in the square for the right hand block because you know the middle row is taken. Last for the comment, look for rows, columns, or blocks with only 2-3 empty spaces when your stumped. You may see that it needs a 1, and a 5, but one of the spaces in a line already use the 5. So you can put the one in that spot and the 5 in the other.
Maybe I'll actually write up my own how too. Ya think?



If anyone is lost or stuck, you can try my simple sudoku solver!

<http://www.simplesudokusolver.com/>

Should be really fast and easy to use. Let me know if you have any feedback!



Alright its still a god technique but its not fast enough. I need a fast one



Alright its still a god technique but its not fast enough. I need a fast one



Wow! I was struggling trying to find a technique to help me with Sudoku and this was it. It was simple and straight to the point and it does work with the hard ones. The only thing wrong is that you do have to think.....TO PICKUP YOUR PENCIL AND ERASE! That is all I thought about. Try this it works



Nice one! You are implicit using some of the solving techniques mentioned here:

<http://sudokusolvertips.com/category/sudoku-resolving-strategies/>



aaawwwwwwesome

- without thinking is preposterous as the "solution" you give is precisely what we all do when we solve à sudoku ... Exception we do it in our brain and do not write it down.

- sorry "except" not "exception"

Difficult to write english without an french auto correct !!!! ;)



What's the point in solving a sudoku without thinking? There's no pride or "retribution".

- Using computer programmes to solve Sodoku seems to defeat the object of trying to solve a puzzle or problem to exercise the brain!
Presumably 'broper's somewhat exotic spelling is not for real!
(who is lble?)
- this doesnt work with very hard sudoku puzzles. the really tricky ones will make you randomly pick a number for a square and check to make sure it works in that square as you fill more in.
- I have done many "genius level" Sudokus without guessing. There is no need to guess. If you are interested, I'll put up the information on a wordpress blog that works for me.



Thank you. Please, do that.

- I picked up my first puzzle and applied this technique. I failed then copied the puzzle again and took my time. Unfortunately the puzzle was labeled "gold" or "Hard" and I still have a few squares left with a lot needing the same numbers. Is there some sort of "next step" or should I just "hit and miss" and take the "keep trying approach"? Any suggestions?
- No need to guess. If you are interested, I can provide additional clues.



Thank you. Please, do that.

- whats the matter with some of you,this is the easyiest systemi have ever seen I just solved the outlaw level3 times with out a hitch,simple just fallw instructions thank you

love this system