

## Astraware Sudoku

## User Documentation

Sudoku is a logical puzzle game, originally created in puzzle books and then made available in countless newspapers worldwide. The grid is 9 cells high by 9 cells wide and within the grid are 9 boxes each featuring 9 cells. The object is to fill in the numbers 1-9 in each row, column and box, but they must only appear in each one once. Many people are put off by seeing a grid with numbers in it, but in fact the puzzle doesn't require any arithmetic at all - just deduction and logic, and with the inbuilt assistance in the game and the aid of our accompanying website, everyone can play Sudoku.

Astraware Sudoku is suitable for players of all abilities and features include 6 levels of difficulty, pencil marks in a choice of styles, optional completion and tracking of pencil marks, a unique and innovative notepad which enables players to make handwritten notes and sketches overlaid upon the grid, and an advanced hint system to assist you by highlighting areas where progress can be made without giving away the answer.

Astraware Sudoku includes a selection of inbuilt puzzles of varying difficulty for you to evaluate. After registration the game will allow a range of additional pre-built puzzle packs to be added. These extra packs will be available free of charge from [www.sudokuoftheday.com](http://www.sudokuoftheday.com). The unlocked version of Astraware Sudoku includes a puzzle creator which will generate literally billions of true Sudoku puzzles, all of which are solvable by logic alone. It also includes a puzzle solver, so you can input any Sudoku from a newspaper or book and Astraware Sudoku can show you the solution or give you hints to help you play along. Registered users may also download the latest puzzle of the day directly to your PDA from [www.sudokuoftheday.com](http://www.sudokuoftheday.com).

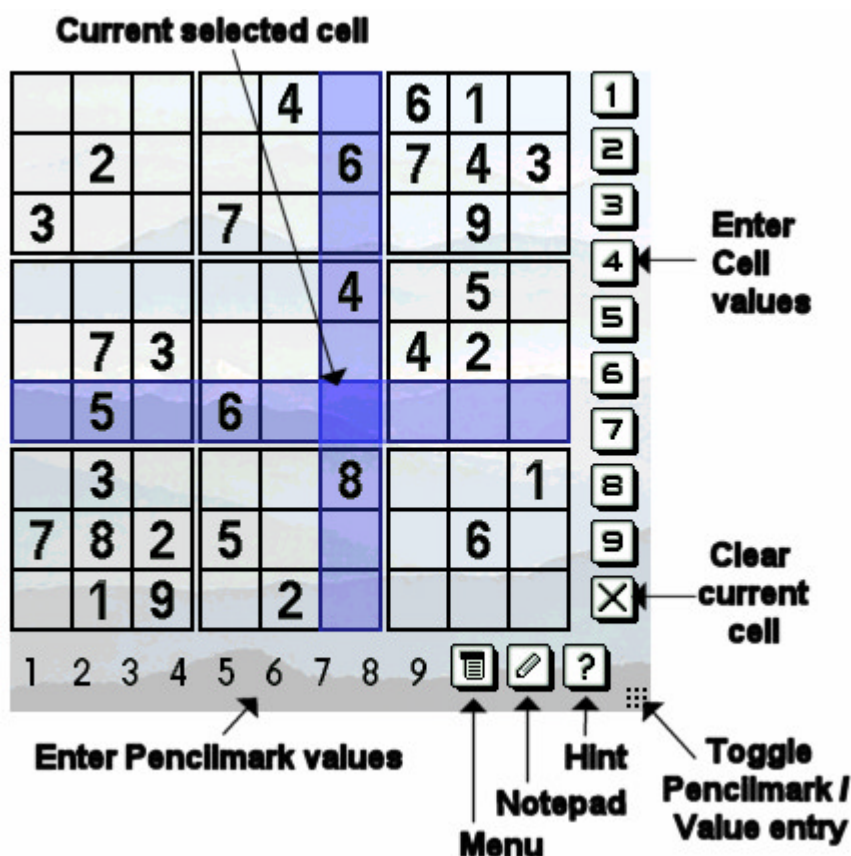
## How to Play

Sudoku is a logical puzzle game, originally created in puzzle books and then made available in countless newspapers worldwide.

Many people are put off by seeing a grid with numbers in it, but in fact the puzzle doesn't require any arithmetic at all - just deduction and logic.

The goal when solving any Sudoku puzzle is to fill in all the 81 cells of the game board with a number between 1 and 9, but there are a few rules which restrict what you may enter where!

The board consists of a set of 9 3x3 grids, arranged themselves in a 3x3 grid. The first, and only rule, is that you may only use a number **once** in each row, in each column, and in each 3x3 box.



## Selecting Cells

Tap on any cell to select that cell, or use the directional pad to highlight the cell in blue. If you have "Show Guidelines" selected (selected by default), then the row and column containing this cell will also be highlighted in a lighter shade for visibility. The "Show Guidelines" option is available from the "Display" menu under "Options".

## Pencil mark entry

The numbers along the bottom edge of the screen relate to pencil mark entry. Selecting a number from here will place a small black box around that value, and the contents of the selected cell will change to show that you've added a pencil mark (this will normally show small numbers for each pencil mark value selected). You can select multiple pencil marks, and selecting the same value a second time will remove it.

Astraware Sudoku can automatically update and fill in the pencil marks for you if you wish, by selecting the "Auto Pencil mark" option from the "Assistance" menu under "Options". Alternatively, selecting the "Fill Pencil marks" menu option will fill the pencil marks in based the pencil marks on the numbers currently in the grid, and in this case does not automatically update the values if you make changes. To have the cells automatically update, select the "Auto Pencil marks" option from the "Assistance" menu (found under "Options").

## Cell value entry

The numbers along the right hand edge of the screen represent the cell values. When you've decided which number is the correct value, use these to set the desired value.

## Notepad

Selecting the pencil icon (Notepad) will switch to the notepad mode. This allows you to write your own notes directly onto the screen, either for working on the puzzle or even just for writing something down quickly so you don't forget it! Return to the puzzle again by tapping on the same icon.

## Hints

Tap on the "?" button for a hint! If you have "Tactical Hints" selected (on by default), then tapping on this button will have different effects each time you tap it:

1. The first time you tap this button a row or column will be highlighted, indicating an area to start looking
2. On the second press, this will be narrowed down to a specific cell
3. The third press will give you a descriptive suggestion on what to try, such as applying a certain technique or examining a particular pattern.
4. Finally, on the fourth tap, the answer will be revealed!

If "Tactical Hints" are turned off, then requesting a hint will reveal the contents of a random cell.

## Other ways to fill the cells in!

In the very bottom right hand corner of the screen is a small indicator, displaying either 9 dots or the letter "N", and tapping on this icon switches it between the small dots and the "N". As many PDAs have their own method of entering number or letters (such as a keyboard), we wanted to provide a simple way for you to use these. When the icon displays the small dots, entering a number will add a pencil mark to the currently selected cell for that value. If the icon displays the letter "N", then entering a number will set the value of that cell to that number. You can also toggle this by pressing the centre of the directional pad!

## Solving Sudoku

There are many techniques for solving Sudoku, and while simple Sudoku can be solved with the simplest techniques, the most complex Sudoku can only be solved using some of the more advanced techniques.

For information on all the techniques which can be used to solve Sudoku, and examples of how to apply them, visit [www.sudokuoftheday.com](http://www.sudokuoftheday.com)

### Pencil marks

Most paper-and-pencil Sudoku players tend to come up with their own systems to help them complete the grids. Very few players complete puzzles only by writing in the final numbers!

The most common way to annotate grids is by writing in tiny numbers - usually referred to as "pencil marks" - which really mean "this number is still possible for this cell." You may be able to narrow down a cell to only contain "5 and 8" but not know which one.

If you write a tiny "58" in the cell, then later on you may make another placement which allows you to cross off one of your pencil marks. So, if you crossed out the "5", you know that the cell can now only contain an "8", so you can erase both pencil marks and write in the large "8".

You don't need to add in all of the pencil marks - good players find it slows them down too much for the easiest puzzles, but need to use them for trickier puzzles.

Many of the techniques that follow don't actually provide you with a direct placement, but help you by allowing you to cross out one or more pencil marks.

Writing in all of the pencil marks for every cell is quite a laborious task, but a computer program can do this automatically, updating the pencil marks for cells whenever you add in a new value. Spot in the example puzzle that having pencil marks there makes finding Single Candidates trivially easy! (See the lone 3 in the top right 3x3 block).

## Simple Techniques

Here are a couple of the simplest techniques to get you started on your first Sudoku! Even though there are many more advanced techniques which can be used, most are simply used to help you eliminate possibilities, making it possible to apply these two to finding a solution. Further information on getting started found at [www.sudokuoftheday.com](http://www.sudokuoftheday.com).

### The "Single Position" technique

Choose a row, column or box, and then go through each of the numbers that hasn't already been placed. Because of other placements, the positions where you could place that number will be limited. Often there will be two or three places that are valid, but if you're lucky, there'll only be one. If you've narrowed it down to only one valid place where you can put the number... you can fill that number straight in, since it can't go anywhere else!

An example of how to apply this technique is available at:

[www.sudokuoftheday.com/pages/techniques-1.php](http://www.sudokuoftheday.com/pages/techniques-1.php)

**Tip:** While sometimes you may end up having to scan every row, column and box, the chances of finding a single position are better in an area that already has plenty filled in. Start your search in a line or box that is already busy, and you may save yourself quite a bit of time!

## The "Single Candidate" technique

This technique is very easy - especially if you're using pencil marks to store what candidates are still possible within each cell.

If you've managed to rule out all other possibilities for a particular cell (by examining the surrounding column, row and box), so there's only one number left that could possibly fit there - you can fill in that number.

An example of how to apply this technique is available at:

[www.sudokuoftheday.com/pages/techniques-2.php](http://www.sudokuoftheday.com/pages/techniques-2.php).

**Tip:** If you're using a computer program to assist you, then you'll probably do most of your placements with this method. If you're doing your pencil marks by hand - double check that you've filled them in correctly, otherwise you might make a placement that isn't valid!

## Advanced Techniques...and more!

There are many more advanced Sudoku techniques which can be used (and are sometimes required!) in order to solve the most difficult of puzzles. For more information on these advanced techniques and examples of how to apply them, visit [www.sudokuoftheday.com](http://www.sudokuoftheday.com).

**Tip:** Registered users can also download extra puzzle packs from [www.sudokuoftheday.com](http://www.sudokuoftheday.com) and the latest Sudoku of the Day from any with Astraware Sudoku on internet connected devices.

## Support

If you've got suggestions or questions regarding Astraware Sudoku, or wish to report any problems you've had, then please contact [support@astraware.com](mailto:support@astraware.com)

## Contributors

### **Astraware**

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Many thanks also to our tireless beta testers!

## Company Information

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