

SUDOKU: PROBLEM SOLVING PUZZLES FOR BEGINNERS

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Description:

Do you Sudoku? Learn what these popular logic puzzles are, and learn some techniques for solving them. This workshop is for people that are new to Sudoku puzzles.

Do You Sudoku?

Background:

Sudoku puzzles look a little like crossword puzzles with numbers – you may have seen them in your local newspaper. Although they contain numbers you don't need to do calculations to solve Sudoku puzzles – these puzzles are solved using logical reasoning. Part of the popularity of playing Sudoku is the simplicity of the rules: to solve the puzzle, place a number from 1 through 9 in each cell of a 9 by 9 grid, so that each row, column and 3 by 3 sub-grid region contains the numbers 1 through 9 exactly once.

Dell, a US puzzle publisher, first published this puzzle in the 1970s and called it “Number Place”. Sudoku then became popular in Japan in the mid-1980s. The name Sudoku is an abbreviation of a Japanese name that means “the numbers must be single”. In 1997, Wayne Gould, a New Zealander, saw a version of the puzzle in Japan, and proceeded to write a computer program to create more puzzles, a task that took him 6 years. The popularity of the Sudoku puzzles has increased dramatically since 2004, when Gould promoted the puzzle to *The Times* in Britain. Since then, as Sudoku has become more and more popular, with many newspapers in Britain, the United States, and Costa Rica publishing daily puzzles.

What Are The Rules?

For the most popular Sudoku, the 9 x 9 version, place a number from 1 through 9 in each cell of the 9 by 9 grid, so that each row, column and 3 by 3 sub-grid region contains the numbers 1 through 9 exactly once.

However, Sudoku puzzles can be grids of 4 x 4, 6 x 6 (simpler than the 9 x 9) or 16 x 16 (more difficult).

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To Do and Notice:

Try this simple 4 x 4 Sudoku puzzle.

Complete the grid so that every row, every column, and every 2 x 2 sub grid contains the numbers 1 through 4 exactly once each.

The simplest strategy is to write which numbers are possible in each cell. Then use logical reasoning to eliminate all but one of the possibilities in each cell.

| | | | |
|---|---|---|---|
| 3 | | | 1 |
| 1 | | 2 | |
| | 3 | | 4 |
| 4 | | | 2 |

http://www.abcteach.com/free/s/sud_4x4_numbers_easy.pdf

| | | | |
|--|----------|----------|----------|
| | 4 | | 3 |
| | | | |
| | | | |
| | 1 | 3 | 4 |

<http://www.edhelper.com/sudoku.htm>

The following web site has detailed explanations of how to solve Sudoku puzzles.

<http://www.paulspages.co.uk/sudoku/howtosolve/index.htm>

| | | | |
|----------|----------|----------|----------|
| | | | |
| 3 | | 2 | |
| | 4 | | 1 |
| | | | |

http://www.abcteach.com/free/s/sud_4x4_numbers_hard.pdf