V&S PUBLISHERS

SUDOKU

NEW

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

SUDOKU

N E W

DISCLAIMER

PUBLISHER'S NOTE

Sudoku is an addictive number puzzle that had taken the United Kingdom by storm and is now taking over the rest of the world. Since it first appeared in *The Times* in late 2004 its popularity has grown to such an extent that it appears in most of the newspapers published in the United Kingdom and has spread to countries - India, Canada, Australia, South Africa, etc.

The sudden popularity of Sudoku may be due to many reasons. It requires just enough brainwork to give a feeling of satisfaction when the puzzle is complete, without taking up huge amounts of time and it requires no special knowledge unlike, for instance, crosswords, which may require a wide range of vocabulary.

Keeping in mind the growth and popularity of Sudoku in India and its increasing demand, **V&S Publishers** have toyed with the idea of producing this amazing book with over 75 puzzles for you to solve in the most common variant 9x9 grid.
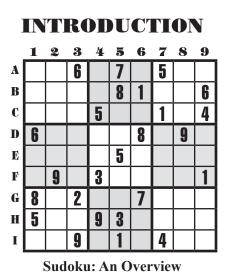
The book is further divided into four stages to help you improve and step towards perfection with every completing stage. They are:

❏ very hard (★ ☆ ☆ ☆)

❏ expert (★ ★ ☆ ☆)

❏ super (★ ★ ★ ☆)

❏ alphasudoku (★ ★ ★ ★)

We hope you have as much fun solving the Sudokus as we did compiling them.

So sharpen your pencil and start solving SUDOKU.

Happy puzzling!!

INTRODUCTION

Sudoku: An Overview

Sudoku is a logical puzzle game, originally created and appeared in puzzle books only, but with passing time it has now become a common feature in newspapers and magazines across the world. The word *Sudoku* is an abbreviated form of *Su-ji wa dokushin ni kagiru* which means "the numbers must be single".

Structure or Pattern

Sudoku is normally a 9×9 grid made up of 3×3 subgrids (called "regions"). Some cells already contain numbers, known as "givens". The goal is to fill in the empty cells, one number in each, so that each column, row, and region contains the numbers 1 to 9 exactly once. Each number in the solution therefore occurs only once in each of three "directions", hence the "single numbers" implied by the puzzle's title.

The attraction of the Sudoku is that the completion rules are simple, yet the line of reasoning required to reach the completion may be difficult. The puzzles often are ranked in terms of difficulty. This also may be expressed by giving an estimated solution time. While, generally speaking, the greater the number of "givens", the easier the solution, the opposite is not necessarily true. The true difficulty of the puzzle depends upon how easy it is to logically determine the subsequent numbers.

History

Sudoku is believed to have its roots in the mathematical concept of Latin Squares (Latin Squares is used in statistical analysis). **Leonhard Euler**, a Swiss mathematician, in the 1780's developed the idea of arranging numbers in such a way that any number or symbol would occur only once in each row or column.

Sudoku rules add the restraint that each region may only have the numbers (or symbols) occurring but once. **Howard Garns**, an architect from Indianapolis, is credited with creating this rule when he developed the puzzle we know today as **SUDOKU**.

Dell Magazines published the puzzle under the name of **Number Place** for over 25 years. It is a staple of *Dell Magazines* to this day. *Dell Magazines* also publishes several Sudoku books with titles as *Dell Original Sudoku*, *Dell Extreme Sudoku*, and *Dell Maximum Sudoku* to name a few.

Sudoku is definitely an American invention, but the name isn't American. It was introduced to Japan by Nikoli under the name of '*Suuji wa dokushin ni kagiru',* roughly translating to mean 'the numbers must be unmarried or single'. Thankfully the name has been shortened to Sudoku.

The history of Sudoku continues to expand as **Wayne Gould**, a retired Hong Kong judge, author of *Su Doku The Official Utterly Addictive Number-Placing Puzzle*, first encountered the puzzle in a Tokyo book store. He began to create his own puzzles and was soon addicted like the rest of us. He introduced his puzzles to *The Times*, a British newspaper, as Su Doku. His puzzles first appeared there on November 12, 2004.

The rest is history. The puzzle has crossed the pond back to the United States from England. It now appears in many major newspapers across the United States and even India. Its popularity is increasing with each passing day.

Today you will find not only Sudoku puzzle books, but Sudoku hand held games, Sudoku board games and a growing list of merchandise pan India & abroad.

Competitions

Sudoku, dubbed as the hottest puzzle sensation since the Rubiks Cube gained worldwide popularity in early 2005. The first World Sudoku Championship (WSC) was held in March 2006 in Lucca, Italy. The fifth WSC was held recently in April 2010 in Philadelphia, USA.

Logic Masters India in association with TechFest at IIT Bombay, also provides an opportunity to all Indians, irrespective of age to test their logical skills in the Indian Sudoku Championship and then represent India at the WSC.

The 2011 WSC will be in Hungary, alongside the World Puzzle Championship.

Refer to the next page for table –

List of WSC

Year	Place	Country	Individual			Team		
			Gold	Silver	Bronze	Gold	Silver	Bronze
2011		Hungary						
2010	Philadelphia	United States	Jan Mrozowski	Jakub Ondrousek	Hideaki Jo	Germany	Czech Republic	Japan
2009	Žilina	Slovakia	Jan Mrozowski	Branko Ceranic	Robert Babilon	Slovakia	Czech Republic	Serbia
2008	Goa	India	Thomas Snyder	Yuhei Kusui	Jakub Ondrousek	Czech Republic	Japan	Germany
2007	Prague	Czech Republic	Thomas Snyder	Yuhei Kusui	Peter Hudak	Japan	United States	Czech Republic
2006	Lucca	Italy	Jana Tylova	Thomas Snyder	Wei Hwa Huang	-	-	-

SOLVING SUDOKU

Solving Sudoku is a great exercise for the brain. It also helps learn logical and deductive reasoning skills. Elderly adults can help slow the aging process of the mind. And of course, solving a puzzle is always fun.
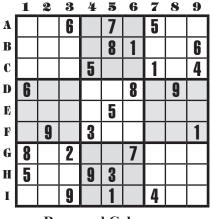
But before you start solving the puzzles, you need to be familiar with certain terminologies and types of Sudoku. In this chapter you will be provided with a brief in this regard along with an example which will guide you how to solve a Sudoku.

Sudoku Terminology

To understand how to play and solve a Sudoku puzzle, we first have to get familiar with certain related terms.

Grid, Cells and Values

The whole puzzle area is called a grid. Typically it is composed of 9x9=81 cells (or squares). Some of the cells are already assigned with values, while others are left blank for players to solve.

	1	2	3	4	5	6	7	8	9
A			6		7		5		
B					8	1			6
C				5			1		4
D	6					8		9	
E					5				
F		9		3					1
G	8		2			7			
H	5			9	3				
I			9		1		4		

Rows and Columns

A Row refers to all cells in a horizontal line. And a Column refers to all cells in a vertical line. There are, obviously, total 9 rows and 9 columns are there in the puzzle above, and each contains 9 cells. To save confusion, rows and columns are referred by Capitalised Letters and Numbers respectively. For example, cell [G6] means the cell in Row G and Column 6, where there is a value 7 located.

Blocks

The term block is used for a set of nine adjacent cells. For example, Block at cell [A1] refers to the top-left block, which starts at Row A and Column 1.

Unit

Any one column, row or block is called a unit (or a group). Each unit of nine cells must have a unique occurrence of numbers 1 to 9.

Sudoku Difficulty

People may think that the difficulty of a puzzle is based on the quantity of numbers given initially. This is, however, not always the case. Sometimes, a puzzle with more given numbers may probably be more difficult than another one with less given numbers.

Practically, one of the measures to determine the level of difficulty is to find out which and how many Sudoku strategies are involved in solving a Sudoku. The easiest puzzle may require only the basic techniques to solve. A harder puzzle, on the other hand, tends to require very advanced strategies.

Although its NOT Mathematics

A Sudoku is a logic-based and not a math-based puzzle. It is possible to create and solve a Sudoku puzzle with letters or even some symbols.

The interesting point is that there are **6, 670, 903, 752, 021, 072, 936, 960** possible Sudoku puzzles. So we can solve umpteen Sudokus a day and there will still be new ones.