

Problem SUDOKU: Sudoku

Despite the Japanese name *Su-ji wa dokushin ni kagiru*, Sudoku was invented by an American, Howard Garns, in 1979 and published by Dell Magazines under the name "Number Place". It became popular in Japan in 1986 and became an international hit in 2005. The more popular name *Sudoku* is the Japanese abbreviation of *Su-ji wa dokushin ni kagiru* meaning *the digits must occur only once*.

Sudoku is a logic-based placement puzzle. The object is to fill the grid so that every column, every row and every 3x3 box contains the digits 1 to 9. Normally a Sudoku looks like in the picture.

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

Your task is now to solve given Sudokus. There is only one possible solution for each puzzle.

Input

Each testcase contains one Sudoku. The Sudoku is modelled as a 9x9 matrix containing the values from 1 to 9. Missing values are indicated through space.

Output

The solved Sudoku is printed as a 9x9 matrix. Each line of the matrix ends with `newline` including the last.

Sample Input 1

```
53 7
6 195
 98 6
8 6 3
4 8 3 1
7 2 6
 6 28
 419 5
 8 79
```

Sample Output 1

```
534678912
672195348
198342567
859761423
426853791
713924856
961537284
287419635
345286179
```