Sudoku Judging

Problem #7
Novice / Advanced
8 points

Task Description

The numbers game of Sudoku has become popular around the world. You've been asked to judge a Sudoku contest, so you decide to write a program to do the judging for you. The game itself is deceptively simple – given a 9x9 grid with some spaces already populated with numbers, you place the digits 1-9 into the remaining spaces. There are only two rules:

- Each row and column must contain each of the digits 1-9 exactly once.
- Each 3x3 region of the grid must contain each of the digits 1 through 9 exactly once.

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

Sudoku Solution

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

Program Input

Sample data is contained in Prob07.in. Read this data using one of the methods described on your "Contest Instructions" sheet, under "Program Input/Output". Each line of the grid will contain the 9 digits with no spaces.

Program Output

Your program must output to the screen the judging result of each submission: CORRECT if the solution is valid, and INCORRECT if it is not.

Sample Program Input / Output

```
257643918
483159627
961728345
796832154
145976832
328514769
514397286
872461593
639285471

CORRECT
```