



Task Sudoku

Sudoku is a logic-based, combinatorial number-placement puzzle. The objective is to fill a 9×9 grid with digits from 1 to 9 in such a way that the following statements hold:

- Each row contains exactly one occurrence of each digit from 1 to 9.
- Each column contains exactly one occurrence of each digit from 1 to 9.
- Each of the nine 3×3 subgrids contains exactly one occurrence of each digit from 1 to 9.

For a given not yet finished sudoku grid, determine if there is a mistake in it.

Note: It is not necessary to check whether the sudoku grid is solvable.

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

*Daily sudoku, New York Times,
November 1, 2023, Difficulty: Hard*

Input

The input describes the sudoku grid.

The characters '|', '-' and '+' frame the 3×3 subgrids.

The character '.' represents an empty cell.

All the other characters in the input will be digits from '1' to '9'.

See the examples for clarification.

Output

Output the word **GRESKA** if there is a mistake in the sudoku board. Otherwise, output the word **OK**.

Scoring

Subtask	Points	Constraints
1	11	It's possible to determine whether there is a mistake by only checking the first rule.
2	12	It's possible to determine whether there is a mistake by only checking the second rule.
3	13	It's possible to determine whether there is a mistake by only checking the third rule.
4	14	No additional constraints.



Examples

input

```
+---+---+---+
|52.|...|.81|
|.39|58.|...|
|.8.|.9.|...|
+---+---+---+
|24.|...|1.3|
|1..|43.|86.|
|.63|..7|.24|
+---+---+---+
|...|1.9|35.|
|..8|.74|6..|
|31.|86.|7.9|
+---+---+---+
```

output

OK

input

```
+---+---+---+
|3..|6..|..4|
|4.9|8.1|..7|
|..7|.49|6..|
+---+---+---+
|946|157|8.2|
|.2.|3..|745|
|.7.|28.|...|
+---+---+---+
|...|4..|..5|
|8.5|.6.|.2.|
|734|..8|5..|
+---+---+---+
```

output

GRESKA

input

```
+---+---+---+
|5..|98.|67.|
|6..|...|.31|
|.2.|613|.4.|
+---+---+---+
|.96|8.2|1.7|
|.28|..5|.9.|
|7.3|19.|6..|
+---+---+---+
|962|.7.|.1.|
|1.5|...|76.|
|.7.|5..|9..|
+---+---+---+
```

output

GRESKA

Clarification of the first example:

There is no mistake, so the output is OK.

Clarification of the second example:

There is a mistake in the ninth column: the digit 5 appears twice; and there is also a mistake in the lower right 3×3 subgrid: the digit 5 appears twice.

Clarification of the third example:

There are two mistakes: the digit 2 appears twice in the second column, and the digit 6 appears twice in the seventh column.