Rooks inside a rectangle

Consider a rectangular board $r \times c$ with $r \leq c$. Write a program that prints all the ways to place $r$ rooks on the board so that no rook threatens another rook.

Input

Input consists of two natural numbers $r$ and $c$, with $1 \leq r \leq c$.

Output

Print all the ways to place $r$ rooks on the board so that no rook threatens another rook. Represent the rooks with a ‘R’, and the empty positions with a dot. Print an empty line after each board.

Information about the checker

You can print the solutions to this exercise in any order.

Sample input 1

```
2 3
```

Sample output 1

```
R..
..R
R.
.R.
R.
.R.
```

Sample input 2

```
1 1
```

Sample output 2

```
R
```