B. Sea and Islands

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

A map of some object is a rectangular field consisting of n rows and n columns. Each cell is initially occupied by the sea but you can cover some some cells of the map with sand so that exactly k islands appear on the map. We will call a set of sand cells to be **island** if it is possible to get from each of them to each of them by moving only through sand cells and by moving from a cell only to a side-adjacent cell. The cells are called to be side-adjacent if they share a vertical or horizontal side. It is easy to see that islands do not share cells (otherwise they together form a bigger island).

Find a way to cover some cells with sand so that exactly k islands appear on the $n \times n$ map, or determine that no such way exists.

Input

The single line contains two positive integers n, k ($1 \le n \le 100$, $0 \le k \le n^2$) — the size of the map and the number of islands you should form.

Output

If the answer doesn't exist, print "NO" (without the quotes) in a single line.

Otherwise, print "YES" in the first line. In the next n lines print the description of the map. Each of the lines of the description must consist only of characters `'S'` and `'L'`, where `'S'` is a cell that is occupied by the sea and `'L'` is the cell covered with sand. The length of each line of the description must equal n.

If there are multiple answers, you may print any of them.

You **should not** maximize the sizes of islands.

Examples

input
5 2

output
YES SSSSS LLLLL SSSSS LLLLL SSSSS

input
5 25

output
NO