B. Marlin

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

The city of Fishtopia can be imagined as a grid of 4 rows and an **odd** number of columns. It has two main villages; the first is located at the top-left cell (1, 1), people who stay there love fishing at the Tuna pond at the bottom-right cell (4, n). The second village is located at (4, 1) and its people love the Salmon pond at (1, n).

The mayor of Fishtopia wants to place k hotels in the city, each one occupying one cell. To allow people to enter the city from anywhere, hotels should not be placed on the border cells.

A person can move from one cell to another if those cells are not occupied by hotels and share a side.

Can you help the mayor place the hotels in a way such that there are equal number of shortest paths from each village to its preferred pond?

Input

The first line of input contain two integers, n and k ($3 \le n \le 99$, $0 \le k \le 2 \times (n - 2)$), n is **odd**, the width of the city, and the number of hotels to be placed, respectively.

Output

Print "YES", if it is possible to place all the hotels in a way that satisfies the problem statement, otherwise print "NO".

If it is possible, print an extra 4 lines that describe the city, each line should have n characters, each of which is "#" if that cell has a hotel on it, or "." if not.

Examples

input
7 2

output
YES ....#..... .#..... ....

input
5 3

output
YES ..... .###. ....