Tree

Example task

Short name: tre
Time limit: 1 s
Memory limit: 256 MB

As we all know, every Christmas tree consists of exactly three parts, in their descending order: upper crown, lower crown, and the trunk. Each part of tree crown is represented by an isosceles triangle 1 character wide at the top and growing by 1 character in both directions (left and right) with each line, going downwards. A Christmas tree will be said to be of size n if its upper crown is n lines tall and its lower crown is n + 1 lines tall. The trunk is always 2 characters tall and 1 character wide, located on the tree's vertical axis, regardless of the overall tree size. In this problem you'll be asked to print a Christmas tree of given size, represented by hashes on a dotted background.

Input

A single integer n ($n \le 1000$) denoting the size of the tree.

Output

If n = 0, print only one line saying "Too small to exist".

Otherwise, print 2*n+3 lines, 2*n+1 characters each, representing a drawing of an n-sized Christmas tree, as described in the problem statement. Check out the examples in order to get a better understanding of the output format.

| Input for test tre1ocen: | |
|--------------------------|--|
| 4 | |

Output for test tre1ocen: