

A. I Wanna Be the Guy

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

There is a game called "I Wanna Be the Guy", consisting of n levels. Little X and his friend Little Y are addicted to the game. Each of them wants to pass the whole game.

Little X can pass only p levels of the game. And Little Y can pass only q levels of the game. You are given the indices of levels Little X can pass and the indices of levels Little Y can pass. Will Little X and Little Y pass the whole game, if they cooperate each other?

Input

The first line contains a single integer n ($1 \leq n \leq 100$).

The next line contains an integer p ($0 \leq p \leq n$) at first, then follows p distinct integers a_1, a_2, \dots, a_p ($1 \leq a_i \leq n$). These integers denote the indices of levels Little X can pass. The next line contains the levels Little Y can pass in the same format. It's assumed that levels are numbered from 1 to n .

Output

If they can pass all the levels, print "I become the guy.". If it's impossible, print "Oh, my keyboard!" (without the quotes).

Examples

input
4 3 1 2 3 2 2 4
output
I become the guy.
input
4 3 1 2 3 2 2 3
output
Oh, my keyboard!

Note

In the first sample, Little X can pass levels [1 2 3], and Little Y can pass level [2 4], so they can pass all the levels both.

In the second sample, no one can pass level 4.

Codeforces Round #268 (Div. 2)

Finished

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.


Start virtual contest

→ Problem tags

greedy implementation

No tag edit access

→ Contest materials

- Announcement 
- Tutorial 