

Game

SEASON 7 – SECOND ROUND



After Ivancho calculated the results of the elections, he decided to rest. He went to his friend Goshko's house and they started to play the following game – players are given n heaps of balls. There is an odd number of balls in each heap. Players alternate turns. In each turn player chooses an arbitrary heap and divides it into three non-empty heaps so as there is again an odd number of nuts in each heap. The player who cannot make a move loses.

Ivancho, of course, starts first. Your task is to determine the winner if both players play optimally.

Input

If the first line of the file `game.in` there is an odd integer N . N lines follow, each of them contains an odd integer a_i – the number of balls in the i -th heap at the beginning of the game.

Output

In the output file `game.out` print "Ivancho" (without quotes) if Ivancho wins. Otherwise print "Goshko".

Constraints

$$1 \leq N \leq 1000$$

$$1 \leq a_i \leq 100000$$

Time Limit: 1.0 sec

Memory limit: 256 MB

Example test

Input (game.in)	Output (game.out)
1 3	Ivancho
5 555 121 5 13 1	Ivancho