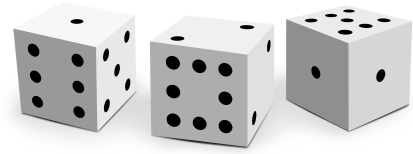


Problem J. The hardest dice problem

Input file: standard input
Output file: standard output
Time limit: 2 seconds
Memory limit: 256 MiB



This problem is interactive.

Taja plays her own game very well. You have a unique opportunity to play along and try to win.

The game equipment consists of two identical sets of n ($2 \leq n \leq 10$) 6-faced dice, each face of which has a number from 1 to 100 written on it. Players are playing simultaneously and independently with zero knowledge about each other's states of the game.

You play the game in the following way. You choose any dice from the set and roll it. You can either accept the number shown (this will be amount of points you receive) or roll another dice, but you will additionally receive 1 penalty point in this case. You never roll the same dice twice during a single play. Your total score equals to the difference between last number and number of repeated rolls. The game ends, when both players decide to accept the shown number.

Since Taja played this game for several years, she will play slightly weaker. You will be considered a winner in the game if your score **greater or equal** to her score. Also Taja will stick to same strategy during single testcase: she will roll dices always in the same order. And she will decide whether to repeat the roll in the following way: if, continuing to roll dices in predetermined order, she can score higher than scores for the last dice roll with probability of at least 50% (taking penalty into account), then she continues to play, and stops otherwise.

In this problem you are to play with Taja 10 000 games and win at least 5 000 of them.

Interaction protocol

First, interactor outputs description of dice. Then your program should play with interactor 10 000 games. Each game goes as follows. Your program outputs number of dice to be rolled. Interactor responds with your score, including penalty. Then your program answers, whether it accepts the shown number. After the end of the game, interactor outputs result of the game — whether you win or not. Then the next game begins.

Output

To roll the dice output the line containing single integer from 1 to n — number of dices. After each roll you should output line containing either string «Yes», if you accept your current score, or «No» otherwise.

Don't forget to flush the standard output after printing each line.

Input

First line of the input contains single integer n — number of dice.

Each of next n lines contains 6 integers from 1 to 100 — numbers written on the faces of i th dice.

For each dice roll input contains single integer — the shown number. All faces are shown equiprobably.

When round ends, input contains single line — «Win», if you program won, or «Lose» otherwise.

Examples

standard output	standard input
1	3
No	1 2 3 4 5 6
2	2 2 2 8 8 8
No	1 1 1 7 7 7
3	1
Yes	1
2	5
Yes	Lose
	8
	Win

Explanation

Example shows only two plays. Real testing will go through all 10 000 games.

In this testcase Taja rolls dices in the same order as they are given in the input.