Simple Game Theory

Description

Alice and Bob want to play a game. The rules are as follows:

At the beginning there are n stones. Alice goes first and the two alternate rounds. On each turn, the player takes p^k stones, where p is any prime number and k is any non-negative integer. If a player takes all the stones on his turn, he wins the game.

It can be proven that one side of the game has a sure win strategy. Now they have to play t times and you need to output who will definitely win each time.

Input Format

The first line includes one integer t.

For the next t lines, each line contains one integer n.

Output Format

In the i-th line, you should output who will definitely win at the i-th time (Alice or Bob).

Sample

Sample Input

```
3
3
6
15
```

Sample Output

```
Alice
Bob
Alice
```

For 40% testcases:

- $t = 1$
- $n \leq 100$

For 100% testcases:

- $1 \leq t \leq 10^2$
- $1 \leq n \leq 10^9$