

# Alice and Bob's Silly Game

Alice and Bob invented the following silly game:

- The game starts with an integer,  $n$ , that's used to build a *set* of  $n$  distinct integers in the inclusive range from 1 to  $n$  (i.e.,  $set = \{1, 2, 3, \dots, n - 1, n\}$ ).
- Alice always plays first, and the two players move in alternating turns.
- During each move, the current player chooses a **prime number**,  $p$ , from *set*. The player then removes  $p$  and all of its multiples from *set*.
- The first player to be unable to make a move loses the game.

Alice and Bob play  $g$  games. Given the value of  $n$  for each game, print the name of the game's winner on a new line. If Alice wins, print **Alice**; otherwise, print **Bob**.

**Note:** Each player always plays optimally, meaning they will not make a move that causes them to lose the game if some better, winning move exists.

## Input Format

The first line contains an integer,  $g$ , denoting the number of games Alice and Bob play. Each line  $i$  of the  $g$  subsequent lines contains a single integer,  $n$ , describing a game.

## Constraints

- $1 \leq g \leq 1000$
- $1 \leq n \leq 10^5$

## Subtasks

- $1 \leq n \leq 1000$  for 50% of the maximum score

## Output Format

For each game, print the name of the winner on a new line. If Alice wins, print **Alice**; otherwise, print **Bob**.

## Sample Input 0

```
3
1
2
5
```

## Sample Output 0

```
Bob
Alice
Alice
```

## Explanation 0

Alice and Bob play the following  $g = 3$  games:

1. We are given  $n = 1$ , so  $set = \{1\}$ . Because Alice has no valid moves (there are no prime numbers in the set), she loses the game. Thus, we print `Bob` on a new line.
2. We are given  $n = 2$ , so  $set = \{1, 2\}$ . Alice chooses the prime number  $p = 2$  and deletes it from the set, which becomes  $set = \{1\}$ . Because Bob has no valid moves (there are no prime numbers in the set), he loses the game. Thus, we print `Alice` on a new line.
3. We are given  $n = 5$ , so  $set = \{1, 2, 3, 4, 5\}$ . Alice chooses the prime number  $p = 2$  and deletes the numbers **2** and **4** from the set, which becomes  $set = \{1, 3, 5\}$ . Now there are two primes left, **3** and **5**. Bob can remove either prime from the set, and then Alice can remove the remaining prime. Because Bob is left without a final move, Alice will always win. Thus, we print `Alice` on a new line.