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Nim v2

Problem code: BYCO17B

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Problem description.

Alice and Bob are bored with the usual game of Nim . Their school has taught them that the initial state of the game determines the winner if games are played optimally(No intention of losing for either player). So, Alice and Bob decide to create a new version of the game called Nim 2.0 . This is like the usual game of Nim except it uses only 2 piles of stones(v2.0, see?). The rules of this game are as follows:

- There are 2 piles **P1,P2** with positive number of stones at the beginning of game. A constant **K** is defined, whose purpose is defined later
- Each person receives alternate turns in which they make a move
- The person who is unable to make a move loses
- **Alice** starts the game

A move is defined as one of the following:

- Remove upto **K** stones from any one of the piles(Pile must be non-empty)
- Remove upto **X**($1 \leq X \leq K$) stones from **P1** and transfer those **X** stones to **P2**

Alice and Bob believe that both have a fair chance of winning this game as they don't know how to play this game optimally. But, you as a computer science student know better and tell them that even this game is biased. They don't believe you, however. It's time for you to prove your point! Given the state of several games, write a program that predicts who will win if Nim 2.0 is played optimally.

Input

Input consists of number of games **G** in first line. **G** lines follow, each containing 3 space-separated integers **P1,P2,K** denoting number of stones in **pile 1**, **pile 2** and constant **K**

Output

Output consists of **G** lines, each containing the word **Alice** or **Bob**

Constraints

- $1 \leq G \leq 10000$
- $1 \leq P1, P2, K \leq 10^{18}$

Example

Input:

1

1 1 1

Output:

Alice

Explanation

Example case 1. Let's denote the number of stones in pile 1 as P1, number of stones in pile 2 as P2. The initial game state is **P1=1,P2=1** with **K = 1**. Alice starts the game. If Alice transfers 1 stone from pile 1 to pile 2, **P1 = 0, P2 = 2**. Bob is forced to take one stone from pile 2 now. Alice takes the last stone from pile 2 and wins the game

Author: rvns03

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Source Limit: 50000 Bytes

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