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Picking coins

Max. Marks: 100

Alice and Bob are playing a game of picking coins. They are given a large pile of N coins and an integer k . In the i^{th} move of any player, k^i coins are picked from the pile. A player who is not able to make the move during his turn loses. You are required to predict the winner of the game.

Note: In every turn, Alice plays first followed by Bob.

Input format

- First line: T that represents the total number of test cases
- Each line of the test case: Two space-separated integers N and k

Output format

For each test case, you are required to print the name of the winner of the game. You have to print either **Alice** or **Bob** depending upon who is the winner of the game.

Constraints

$$1 \leq T \leq 100$$

$$1 \leq N, k \leq 10^{18}$$

SAMPLE INPUT	SAMPLE OUTPUT
4	Bob
10 3	Bob
14 2	Alice
18 10	Alice
37 5	

Explanation

Test Case 1

In the first move: Alice first removes 3 coins, then Bob also removes 3 coins.

In the second move: Alice has to remove 9 coins but since only 4 are available, Alice loses and **Bob** wins.

Test Case 2

In the first move: Alice first removes 2 coins, then Bob also removes 2 coins

In the second move: Alice removes 4 coins, then Bob also removes 4 coins and only 2 coins remain.

In the third move: Alice has to remove 8 coins but it is not possible so **Bob** wins.

Similarly, the other two test cases can be followed.

Time Limit: 1.0 sec(s) for each input file.

Memory Limit: 256 MB

Source Limit: 1024 KB

Marking Scheme: Marks are awarded if any testcase passes.

Allowed Languages: Bash, C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Racket, Ruby, Rust, Scala, Swift, Swift-4.1, Visual Basic

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CODE EDITOR

Enter your code or [Upload your code](#) as file.[Save](#)


Java 8 (oracle 1.8.0_131)



```
1 import java.util.*;
2
3 class TestClass {
4     public static void main(String args[] ) throws Exception {
5         Scanner s = new Scanner(System.in);
6         int T = s.nextInt();
7         int N,k;
8         while(T>0){
9             N=s.nextInt();
10            k=s.nextInt();
11            if((N/k)%2==0)
12                System.out.println("Bob");
13            else
14                System.out.println("Alice");
15        }
16    }
```

```
17 }
18
```


1:1

 Press Ctrl/Command+Spacebar for autocomplete suggestions (accuracy dependent on connection stability).

 Provide custom input

COMPILE & TEST

SUBMIT

 Tip: You can submit any number of times you want. Your best submission is considered for computing total score.

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