# HARBOUR SPACE UNIVERSITY



PROBLEMSET GROUPS HOME TOP CONTESTS GYM RATING API HELP CALENDAR PROBLEMS SUBMIT CODE MY SUBMISSIONS

STATUS HACKS STANDINGS CUSTOM INVOCATION

## D. 1-2-K Game

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

Alice and Bob play a game. There is a paper strip which is divided into n+1 cells numbered from left to right starting from 0. There is a chip placed in the n-th cell (the last one).

Players take turns, Alice is first. Each player during his or her turn has to move the chip 1, 2 or k cells to the left (so, if the chip is currently in the cell i, the player can move it into cell i-1, i-2 or i-k). The chip should not leave the borders of the paper strip: it is impossible, for example, to move it k cells to the left if the current cell has number  $i \le k$ . The player who can't make a move loses the game.

Who wins if both participants play optimally?

Alice and Bob would like to play several games, so you should determine the winner in each game.

### Input

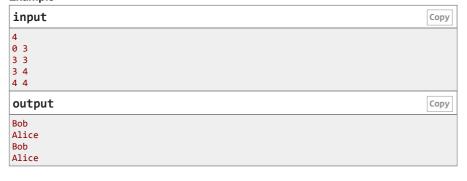
The first line contains the single integer T ( $1 \le T \le 100$ ) — the number of games. Next T lines contain one game per line. All games are independent.

Each of the next *T* lines contains two integers *n* and k ( $0 \le n \le 10^9$ ,  $3 \le k \le 10^9$ ) — the length of the strip and the constant denoting the third move, respectively.

### Output

For each game, print Alice if Alice wins this game and Bob otherwise.

### Example



### **Educational Codeforces Round 68** (Rated for Div. 2)

#### **Finished**

**Practice** 



### → Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

#### → Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

# → Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest



→ Last submissions		
Submission	Time	Verdict
<u>57131891</u>	Jul/16/2019 10:27	Accepted





2019/7/17 Problem - D - Codeforces

Announcement #2 (ru)Tutorial (en)

Codeforces (c) Copyright 2010-2019 Mike Mirzayanov The only programming contests Web 2.0 platform Server time: Jul/17/2019 19:47:26<sup>UTC+8</sup> (e3).

Desktop version, switch to mobile version.

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