

Contest Duration: 2025-11-22(Sat) 23:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251122T2100&p1=248>) - 2025-11-23(Sun) 00:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251122T2240&p1=248>) (local time) (100 minutes)

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G - Substring Game

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Time Limit: 3 sec / Memory Limit: 1024 MiB

Score : 600 points

Problem Statement

You are given a string S consisting of lowercase English letters.

Alice and Bob play the following game using this string.

- Prepare an empty string T .
- Starting with Alice, they take turns playing.
- On each turn, the player chooses one lowercase English letter and concatenates the chosen letter to the end of T . Here, the player cannot take an action such that T after concatenation is not a substring of S .

The player who cannot make a move first loses.

Determine which player will win when both players play optimally.

You are given T test cases; solve each of them.

Constraints

- $1 \leq T \leq 10^5$
- T is an integer.
- S is a string consisting of lowercase English letters with length between 1 and 2×10^5 , inclusive.
- The sum of the lengths of S over all test cases is at most 4×10^5 .

2026-01-02 (Fri)

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Input

The input is given from Standard Input in the following format:

```
 $T$   
case1  
case2  
⋮  
case $T$ 
```

Each test case is given in the following format.

```
 $S$ 
```

Output

Output the answers for the test cases in order, separated by newlines.

For each test case, output Alice if Alice wins when both players play optimally, and Bob if Bob wins.

Sample Input 1

[Copy](#)

```
4  
ooxo  
abrakadabra  
atcoderbeginnercontest  
baabca
```

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Sample Output 1

[Copy](#)

```
Bob  
Alice  
Alice  
Bob
```

[Copy](#)

Consider the first test case.

For example, the game proceeds as follows.

- Alice chooses x . $T = x$.
- Bob chooses o . $T = xo$.

- No matter which lowercase English letter Alice chooses and concatenates to the end of T , T will not be a substring of S , so Alice cannot make a move. At this point, Bob wins.

In this test case, Bob can win no matter how Alice plays. Therefore, output Bob.

#telegram)

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