

# Fairy Chess

Input file: *standard input*  
Output file: *standard output*  
Time limit: 2 seconds  
Memory limit: 512 mebibytes

Alice and Bob have a set consisting of regular and fairy chess pieces. There are a total of 6 types of pieces in the set (bishop, rook, queen, archbishop, chancellor, and maharaja). There are exactly two pieces of each type in the set. A rook can move any number of squares along a rank or file. A bishop can move any number of squares diagonally. The queen combines the power of a rook and bishop and can move any number of squares along a rank, file, or diagonal. A knight moves to any of the closest squares that are not on the same rank, file, or diagonal. Thus the move forms an L-shape: two squares vertically and one square horizontally, or two squares horizontally and one square vertically. The archbishop moves like a bishop and a knight, the chancellor moves like a rook and a knight, and the maharaja moves like a queen and a knight.

Alice and Bob decided to play a game on an 8 by 8 chessboard. At the beginning of the game, the pieces are shuffled and placed in a row, establishing an order. Alice places the first piece on the board in the given order, Bob places the second piece, Alice places the third piece, and so on. Each piece must be placed on an empty square in such a way that it does not capture and is not captured by any previously placed piece. The player who is unable to make a move loses.

Your task is to write a program that determines who will win if both players play optimally.

## Input

The input consists of a string consisting of 12 uppercase letters, representing the order in which the pieces are placed on the board. “B” corresponds to the bishop, “R” corresponds to the rook, “Q” corresponds to the queen, “A” corresponds to the archbishop, “C” corresponds to the chancellor, and “M” corresponds to the maharaja. There are exactly two pieces of each of the six types.

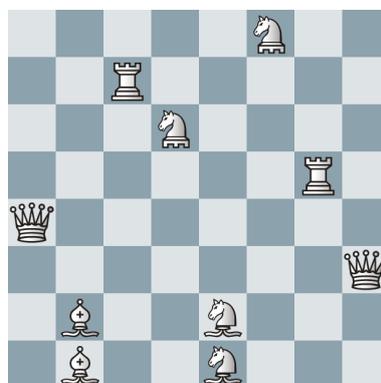
## Output

Output “Alice” if Alice wins. Output “Bob” if Bob wins.

## Examples

<i>standard input</i>	<i>standard output</i>
BBAARRCCQQMM	Bob
BAMBAMQQRCCR	Alice

## Note



Here is a possible final position for the the first example if the opponents did not play optimally. The first ten pieces (all except maharajas) are on the board. The pieces at d6 and f8 are chancellors. The pieces at e1 and e2 are archbishops. The eleventh piece (maharaja) can not be placed.