

D. Ticket Game

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Monocarp and Bicarp live in Berland, where every bus ticket consists of n digits (n is an even number). During the evening walk Monocarp and Bicarp found a ticket where some of the digits have been erased. **The number of digits that have been erased is even.**

Monocarp and Bicarp have decided to play a game with this ticket. Monocarp hates happy tickets, while Bicarp collects them. A ticket is considered happy if the sum of the first $\frac{n}{2}$ digits of this ticket is equal to the sum of the last $\frac{n}{2}$ digits.

Monocarp and Bicarp take turns (and Monocarp performs the first of them). During each turn, the current player must replace any erased digit with any digit from 0 to 9. The game ends when there are no erased digits in the ticket.

If the ticket is happy after all erased digits are replaced with decimal digits, then Bicarp wins. Otherwise, Monocarp wins. You have to determine who will win if both players play optimally.

Input

The first line contains one **even** integer n ($2 \leq n \leq 2 \cdot 10^5$) — the number of digits in the ticket.

The second line contains a string of n digits and "?" characters — the ticket which Monocarp and Bicarp have found. If the i -th character is "?", then the i -th digit is erased. Note that there may be leading zeroes. The number of "?" characters is even.

Output

If Monocarp wins, print "Monocarp" (without quotes). Otherwise print "Bicarp" (without quotes).

Examples

input	Copy
4	
0523	
output	Copy
Bicarp	

input	Copy
2	
??	
output	Copy
Bicarp	

input	Copy
8	
?054??0?	
output	Copy
Bicarp	

input	Copy
6	
???00?	
output	Copy
Monocarp	

Codeforces Round #585 (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 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

→ Submit?

Language: GNU G++11 5.1.0

Choose file: 选择文件 未选择任何文件

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

Submit

→ Problem tags

gamesgreedymath

No tag edit access

→ Contest materials

Announcement #1 (en)

Announcement #2 (ru)

Note

Since there is no question mark in the ticket in the first example, the winner is determined before the game even starts, and it is Bicarp.

In the second example, Bicarp also wins. After Monocarp chooses an erased digit and replaces it with a new one, Bicarp can choose another position with an erased digit and replace it with the same digit, so the ticket is happy.

[Tutorial \(en\)](#)

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