Friends

Pepe, Repe and Sepe are three friends. First Pepe chooses a string. Then Repe constructs a new string that consists of two copies of the original string. Finally Sepe adds one letter somewhere to the string.

Task

You are given the final string and your task is to reconstruct the original string

Input

The only input line contains the final string. It consists of letters uppercase latters A ... Z.

Output

Your program should print the original string. However, if the original string is not unique, you should print `NOT UNIQUE`.

Examples

Input	Output
ABXCABC	ABC

Input	Output
ABABABA	ABA

Input	Output
ABABABABA	NOT UNIQUE

Scoring

Finalize subtasks.

Subtask 1 (X points): The length of the original string is at most 1000 letters.

Subtask 2 (X points): The length of the original string is at most 100 000 letters.

Constraints

Finalize limits.

Time limit: 1 s.

Memory limit: 256 MB.