Problem 1 – Cognate Words

You are a given **string** in a single line. Assume "words" are all sequences of **Latin letters**. For example in the input string "**java..?|basics/*-+=javabasics**" we have 3 words: "**java**", "**basics**" and "**javabasics**".

Write a program to find in the input string all **unique** sets of 3 "words" {**a**, **b**, **c**}, such that **a|b** = **c**. Assume that "**a|b**" means to concatenate the "word" **b** after **a**. We call these "words" {**a**, **b**, **c**} **cognate words**.

For example in the input string "**java..?|basics/*-+=javabasics**" we have one cognate: **java|basics=javabasics**.

Notes: All "words" must be **case sensitive**! Don't repeat the cognate words in the output.

Input

The input comes from the console. It hold a single text line – the input string.

The input data will always be valid and in the format described. There is no need to check it explicitly.

Output

Print at the console all **cognate words** {**a**, **b**, **c**} found in the input sequence in format "**a|b=c**" (without any spaces), each at a separate line. The **order** of the output lines **is not important**. Print "**No**" in case no cognate words exist among the input sequence of characters.

Constraints

- The characters in the input string will be no more than: **1000.**
- Time limit: 0.3 sec. Memory limit: 16 MB.

Examples

Input	Output
java..?|basics/*-+=javabasics	java|basics=javabasics
Hi, Hi, Hihi	No
Uni(lo,.ve=I love SoftUni (Soft)	Soft|Uni=SoftUni lo|ve=love
a a aa a	a|a=aa
x a ab b aba a hello+java a b aaaaa	a|b=ab ab|a=aba
aa bb bbaa	bb|aa=bbaa
ho hoho	No