



L • Evenly Separated Strings

Given a string consisting of lowercase letters. We say the string is *evenly separated* if and only if there is an even number of characters between *every* pair of the same characters. For example, **abba** is *evenly separated* while **aabba** is not. For this problem, you will write a program to determine whether the given string *s* is *evenly separated* or not.

Input

Input consists of a single line containing the string of at most 1,000,000 lower-case letters to check if it is *evenly separated*.

Output

The output line consists of the word **YES** if the string is *evenly separated* or **NO** if the string is not *evenly separated*.

Sample 1:

Sample Input	Sample Output
abba	YES

Sample 2:

Sample Input	Sample Output
aabba	NO

Sample 3:

Sample Input	Sample Output
abcdefyzfedcba	YES