

Is Palindrome



Given a string, determine if it is a palindrome, considering only alphanumeric characters and ignoring cases.

Input Format

A single line which contains the input string.

Output Format

A single line which contains YES or NO in uppercase.

Sample Input

A man, a plan, a canal: Panama

Sample Output

YES

Explanation

Have you consider that the string might be empty? This is a good question to ask during an interview.

For the purpose of this problem, we define empty string as valid palindrome.