



HOME TOP CONTESTS GYM PROBLEMSET GROUPS RATING API HELP CALENDAR

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PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS ROOM STANDINGS CUSTOM INVOCATION

D. Irreducible Anagrams

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Let's call two strings s and t anagrams of each other if it is possible to rearrange symbols in the string s to get a string, equal to t.

Let's consider two strings s and t which are anagrams of each other. We say that t is a *reducible anagram* of s if there exists an integer $k \ge 2$ and 2k non-empty strings $s_1, t_1, s_2, t_2, ..., s_k, t_k$ that satisfy the following conditions:

- 1. If we write the strings $s_1, s_2, ..., s_k$ in order, the resulting string will be equal to s;
- 2. If we write the strings $t_1, t_2, ..., t_k$ in order, the resulting string will be equal to t;
- 3. For all integers i between 1 and k inclusive, s_i and t_i are anagrams of each other.

If such strings don't exist, then t is said to be an *irreducible anagram* of s. Note that these notions are only defined when s and t are anagrams of each other.

For example, consider the string s = "gamegame". Then the string t = "megamage" is a reducible anagram of s, we may choose for example $s_1 = \text{"game"}$, $s_2 = \text{"gam"}$, $s_3 = \text{"e"}$ and $t_1 = \text{"mega"}$, $t_2 = \text{"mag"}$, $t_3 = \text{"e"}$:

Codeforces Round #616 (Div. 2)

Finished

→ Practice?

Want to solve the contest problems after the official contest ends? Just register for practice and you will be able to submit solutions.

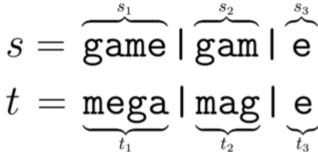
Register for practice

→ 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





On the other hand, we can prove that t = "memegaga" is an irreducible anagram of s.

You will be given a string s and q queries, represented by two integers $1 \le l \le r \le |s|$ (where |s| is equal to the length of the string s). For each query, you should find if the substring of s formed by characters from the l-th to the r-th has \underline{at} least one irreducible anagram.

Input

The first line contains a string s, consisting of lowercase English characters ($1 \le |s| \le 2 \cdot 10^5$).

The second line contains a single integer q ($1 \le q \le 10^5$) — the number of queries.

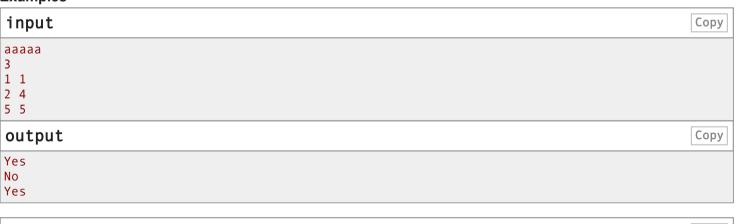
Each of the following q lines contain two integers l and r ($1 \le l \le r \le |s|$), representing a query for the substring of s formed by characters from the l-th to the r-th.

Output

For each query, print a single line containing "Yes" (without quotes) if the corresponding substring has at least one irreducible anagram, and a single line containing "No" (without quotes) otherwise.

Examples

input







Copy

aabbbbbbc 6 1 2 2 4 2 2 1 9 5 7 3 5	
output	Сору
	Сору
output No Yes	Сору
No Yes Yes	Сору
No Yes Yes Yes	Сору
No Yes Yes	Сору

Note

In the first sample, in the first and third queries, the substring is "a", which has itself as an irreducible anagram since two or more non-empty strings cannot be put together to obtain "a". On the other hand, in the second query, the substring is "aaa", which has no irreducible anagrams: its only anagram is itself, and we may choose $s_1 = "a"$, $s_2 = "aa"$, $s_3 = "aa"$, $s_4 = "aa"$, $s_5 = "aa"$,

In the second query of the second sample, the substring is "abb", which has, for example, "bba" as an irreducible anagram.

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