

Problem C

You are given a string s and a list of queries of form “Is the substring of s of length ℓ starting at position a lexicographically smaller than the one starting at position b ?”. Answer the queries.

Input and output

The first line of the input contains a non-empty string s of length $t \leq 200\,000$ consisting only of lowercase letters. The second line contains a single integer $n \leq 1\,000\,000$, the number of queries. Each of the following n lines contains three integers a , b , and ℓ ($1 \leq \ell \leq t$, $0 \leq a, b \leq t - \ell$). For each of them, output 1 if the substring of s of length ℓ starting at position a is lexicographically smaller than the one starting at position b , and 0 otherwise.

Example

Input:

```
banana
3
0 1 5
1 2 1
1 3 3
```

Output:

```
0
1
0
```