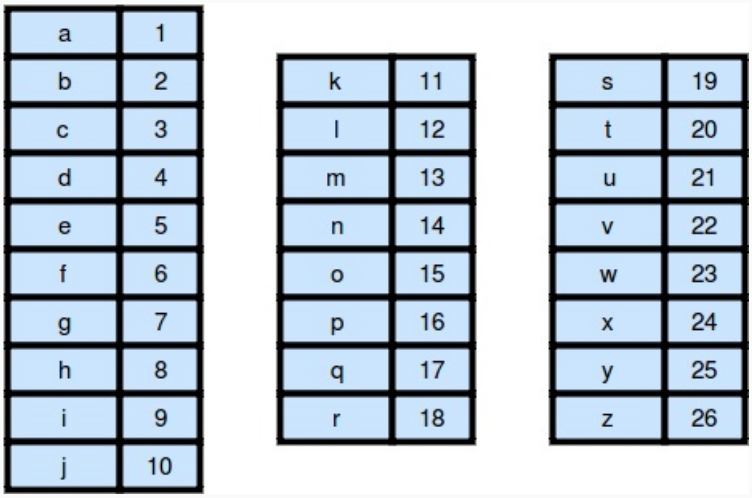
A weighted string is a string of lowercase English letters where each letter has a *weight*. Character weights are 1 to 26 from a to z as shown below:



a	1
b	2
c	3
d	4
e	5
f	6
g	7
h	8
i	9
j	10

k	11
l	12
m	13
n	14
o	15
p	16
q	17
r	18

s	19
t	20
u	21
v	22
w	23
x	24
y	25
z	26

We define the following terms:

- The *weight of a string* is the sum of the weights of all the string's characters. For example:

apple	1 + 16 + 16 + 12 + 5 = 50
hack	8 + 1 + 3 + 11 = 23
watch	23 + 1 + 20 + 3 + 8 = 53
ccccc	3 + 3 + 3 + 3 + 3 = 15
aaa	1 + 1 + 1 = 3
zzzz	26 + 26 + 26 + 26 = 104

- A *uniform string* consists of a single character repeated zero or more times. For example, `ccc` and `a` are uniform strings, but `bcb` and `cd` are not.

Given a string, s, let U be the set of weights for all possible uniform contiguous substrings of string s. You have to answer n queries, where each query i consists of a single integer, $x[i]$. For each query, print `Yes` on a new line if $x[i] \in U$; otherwise, print `No` instead.

Note: The $\in$ symbol denotes that $x[i]$ is an element of set U.

Function Description

Complete the *weightedUniformStrings* function in the editor below. It should return an array of strings, either `Yes` or `No`, one for each query.

weightedUniformStrings has the following parameter(s):

- *s*: a string
- *queries*: an array of integers

Input Format

The first line contains a string s, the original string.
The second line contains an integer n, the number of queries.
Each of the next n lines contains an integer $x[i]$, the weight of a uniform subtring of s that may or may not exist.

Constraints

- $1 \leq |s|, n \leq 10^5$

- $1 \leq x[i] \leq 10^7$
- s will only contain lowercase English letters, ascii[a-z].

Output Format

Print n lines. For each query, print `Yes` on a new line if $x[i] \in U$. Otherwise, print `No`.

Sample Input 0

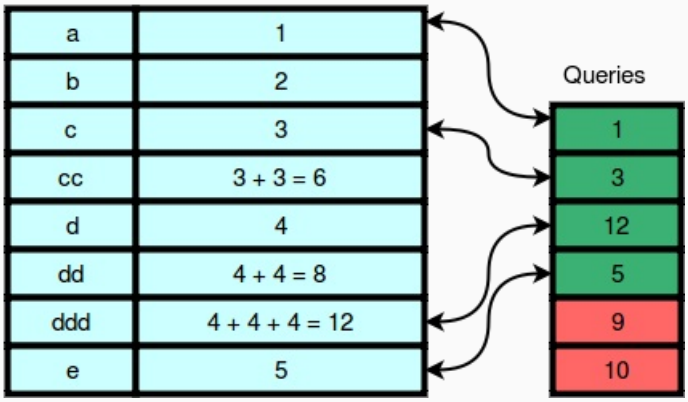
```
abccddde
6
1
3
12
5
9
10
```

Sample Output 0

```
Yes
Yes
Yes
Yes
No
No
```

Explanation 0

The weights of every possible *uniform substring* in the string `abccddde` are shown below:



We print `Yes` on the first four lines because the first four queries match weights of uniform substrings of s. We print `No` for the last two queries because there are no uniform substrings in s that have those weights.

Note that while `de` is a substring of s that would have a weight of 9, it is *not a uniform substring*.

Note that we are only dealing with contiguous substrings. So `ccc` is not a substring of the string `ccxxc`.

Sample Input 1

```
aaabbbbcccddd
5
9
7
8
12
5
```

Sample Output 1

```
Yes
No
Yes
Yes
No
```