String Implementation

Q1.

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

We define the following terms:

• The weight of a string is the sum of the weights of all the string's characters

apple	1 + 16 + 16 + 12 + 5 = 50	
hack	8 + 1 + 3 + 11 = 23	
watch	23 + 1 + 20 + 3 + 8 = 53	
cccc	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] belongs to U; otherwise, print No instead.

Example

s: abccddde

n: 6

x[i]:-

1

3

12

5

9

10

Output:

Yes

Yes

Yes

Yes

No

No

a	1		
b	2	Ι (.	Queries
С	3	\leftarrow	1
СС	3 + 3 = 6	\rightarrow	3
d	4	\rightarrow	12
dd	4 + 4 = 8	\longrightarrow	5
ddd	4 + 4 + 4 = 12	$\leftarrow \mid \; \mid$	9
е	5	\leftarrow	10

Q2.

Determine whether a string is funny or not. To determine whether a string is funny, create a copy of the string in reverse e.g. abc->cba. Iterating through each string, compare the absolute difference in the ascii values of the characters at positions 0 and 1, 1 and 2 and so on to the end. If the list of absolute differences is the same for both strings, they are funny.

Determine whether a give string is funny. If it is, return Funny, otherwise return Not Funny.

For example, given the string s=lmnop, the ordinal values of the characters are [108,109,110,111,112]. $s_{reverse} = ponml$ and the ordinals are [112,111,110,109,108]. The absolute differences of the adjacent elements for both strings are [1,1,1,1], so the answer is Funny.

Example1:

Input: acxz

Output: Funny

Reason:

s=acxz [97,99,120,122]

r=zxca [122,120,99,97]

For both the strings the adjacent difference list is [2, 21, 2] so we print Funny.

Example2:

Input: bcxz

Output: Not Funny

The adjacent difference list for string s is [1, 21, 2] and for string r it is [2, 21, 1]. Since they are not the same we print Not Funny.