

Checking AlienDictionary LexicographicalOrder

Problem Statement

Ninja is learning a new but strange language known as Alien Language. Alien language possesses the same alphabets as of English language, but their order is different. The order of letters are given as 'ORDER' string. Ninja has 'N' words in the 'WORDS' array. Ninja's task is to check whether the words of 'WORDS' are sorted lexicographically in this alien language or not.

Note: 'ORDER' consists of all 26 letters of English alphabet.

For Example

If 'WORDS' = ["word","world","row"], 'ORDER' = "worldabcefghijklmnpqstuvwxyz", the answer will be 'NO' as first and second words are not lexicographically sorted as 'l' comes before 'd' in alien language.

Detailed explanation (Input/output format, Notes, Images)

Input Format:

The first line of the input contains an integer, 'T,' denoting the number of test cases.

The first line of each test case contains a single integer, 'N' denoting the number of words.

The second line of each test case contains 'N' strings corresponding to 'WORDS'.

The third line contains a permutation of 26 letters denoting the 'ORDER' string.

Output Format:

For each test case, print 'YES' if the words are sorted, else print 'NO'.

Print the output of each test case in a separate line.

Note:

You do not need to print anything. It has already been taken care of. Just implement the given function.

Constraints:

$1 \leq T \leq 10$

$1 \leq N \leq 1000$.

$1 \leq \text{length of 'WORDS'[i]} \leq 20$

Time limit: 1 sec

Sample Input 1:

```
2
3
word world row
worldabcefg hijkmnpqstuvwxyz
2
ninja codingninja
nabcde fghijklmopqrstuvwxyz
```

Sample Output 1:

```
NO
YES
```

Explanation Of Sample Input 1:

For the first test case,

The first and Second words of 'WORDS' are not lexicographically sorted as 'l' comes before 'd' in the alien language. Hence, the answer is 'NO'.

For the second test case:

The words of 'WORDS' are sorted in lexicographical order according to the alien language. Hence, the answer is 'YES'.

Sample Input 2:

```
2
6
bg poeupcym i yqifzvlep d enjodzbq
gxqynrktahwoevljzmbdspfcu
7
kt ggt lmvynuw dnvxjy fht qeefx ovs
ykarxuhvimjgldpfqtzsebownc
```

Sample Output 2:

```
NO
YES
```