

Problem F4003

Concatenate Strings

You are playing a game with Alice, Bob and Charlotte. Initially each of participants has a slip of paper with a string of characters written on it. The concatenation of two strings is a new string formed by append one of the string to the other. For example the concatenation of "abc" and "def" could be "abcdef" or "defabc".

The game is simple, Alice, Bob and Charlotte will determine a order to concatenate their strings. They will concatenate two strings first, and then concatenate the resulting string with the last string. If the final string is identical to yours, you lose, otherwise you win.

Alice, Bob and Charlotte are clever, if there exist a solution, they always find it. So provided all the strings, determine if you lose or win.

Input

The input consist of 4 lines, with a string on each line. The first 3 lines are the strings for Alice, Bob and Charlotte. The last line is the string on your paper.

Each string consist of at least 1, at most 100 many lower case English alphabet. It is guaranteed the total length of their strings is the same as yours, which means in this game each of them has to use their string.

Output

Print "Yes"(without quote) if you can win this game, otherwise print "No"(without quote).

Sample Input 1

```
ab
bc
ca
bccaab
```

Sample Output 1

```
No
```

Sample Input 2

```
ab
bc
ca
abbcac
```

Sample Output 2

Yes

Explanation of Sample Data

In the first sample, we can use concatenate the string in the following order : Bob Charlotte Alice.

In the second sample, we have to put Alice's string first(it starts with 'a'). Then we have to put Bob's string(upcoming 'b'). But the Charlotte's string does not fit the last two characters. So there is no way to achieve your string.