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# Append and Delete

 by **zemen**

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You have a string,  $s$ , of lowercase English alphabetic letters. You can perform two types of operations on  $s$ :

1. *Append* a lowercase English alphabetic letter to the end of the string.
2. *Delete* the last character in the string. Performing this operation on an empty string results in an empty string.

Given an integer,  $k$ , and two strings,  $s$  and  $t$ , determine whether or not you can convert  $s$  to  $t$  by performing *exactly*  $k$  of the above operations on  $s$ . If it's possible, print `Yes`; otherwise, print `No`.

## Input Format

The first line contains a string,  $s$ , denoting the initial string.

The second line contains a string,  $t$ , denoting the desired final string. The third line contains an integer,  $k$ , denoting the desired number of operations.

## Constraints

- $1 \leq |s| \leq 100$
- $1 \leq |t| \leq 100$
- $1 \leq k \leq 100$
- $s$  and  $t$  consist of lowercase English alphabetic letters.

## Output Format

Print `Yes` if you can obtain string  $t$  by performing exactly  $k$  operations on  $s$ ; otherwise, print `No`.

## Sample Input 0

```
hackerhappy
hackerrank
9
```

## Sample Output 0

```
Yes
```

## Explanation 0

We perform **5** delete operations to reduce string  $s$  to `hacker`. Next, we perform **4** append operations (i.e., `r`, `a`, `n`, and `k`), to get `hackerrank`. Because we were able to convert  $s$  to  $t$  by performing exactly  $k = 9$  operations, we print `Yes`.

## Sample Input 1

```
aba
aba
7
```

**Sample Output 1**

Yes

**Explanation 1**

We perform **4** delete operations to reduce string **s** to the empty string (recall that, though the string will be empty after **3** deletions, we can still perform a delete operation on an empty string to get the empty string). Next, we perform **3** append operations (i.e., **a**, **b**, and **a**). Because we were able to convert **s** to **t** by performing exactly **k = 7** operations, we print **Yes**.

**Sample Input 2**

```
ashley
ash
2
```

**Sample Output 2**

No

**Explanation 2**

To convert **ashley** to **ash** a minimum of **3** steps are needed. Hence we print **No** as answer.

Easy

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Current Buffer (saved locally, editable)

C++14

```
1 #include <iostream>
2 #include <string>
3 #include <algorithm>
4
5 int main()
6 {
7     std::string str; std::cin >> str; // the initial string
8     std::string fin; std::cin >> fin; // the desired final string
9     size_t k; std::cin >> k; // operations
10
11     int same = 0;
12     for(size_t i = 0; i < std::min(str.size(), fin.size()); ++i)
```

```
13  if(str[i] == fin[i]) same++;
14  else break;
15
16  if( (str.size() + fin.size()) - (2*same) > k )
17      std::cout << "No" << std::endl;
18
19  else if( ((str.size() + fin.size()) - (2*same))%2 == k%2 )
20      std::cout << "Yes" << std::endl;
21
22  else if( str.size() + fin.size() <= k)
23      std::cout << "Yes" << std::endl;
24
25  else std::cout << "No" << std::endl;
26
27  return 0;
28 }
29
```

Line: 29 Col: 1

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✓ Test Case #3

✓ Test Case #6

✓ Test Case #9

✓ Test Case #12

✓ Test Case #1

✓ Test Case #4

✓ Test Case #7

✓ Test Case #10

✓ Test Case #13

✓ Test Case #2

✓ Test Case #5

✓ Test Case #8

✓ Test Case #11

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