ICPC Asia Pacific - Hue City Regional Contest

Hue University of Sciences - 8 December 2023

## Problem F Flipping Substrings

Given two strings $a$ and $b$. Your task is to determine whether it is possible to transform string $a$ into string $b$, using only the following operation multiple (possibly zero) times: Select a substring of $a$ with odd length and reverse it.
Recall that a substring is a contiguous sequence of characters within a string.

## Input

The first line of the input contains a single integer $t$ - the number of test cases. $t$ test cases follow, each consists of 2 lines: the first line contains string $a$, and the second line contains string $b$.

It is guaranteed that the total length of all strings in the input does not exceed $10^{5}$, and all given strings contain lowercase English letters only.

## Output

For each test case, print a single line containing YES if it is possible to transform string $a$ into string $b$ using the given operation only, and NO otherwise.

## Sample Explanation

In the first test case, you can transform string $a$ into string $b$ using the following sequence of operations (note that it is not the one with least number of steps):

- Reverse substring han. $a$ becomes nahoi.
- Reverse the whole string. $a$ becomes iohan.
- Reverse substring han. $a$ becomes ionah.

Sample Input 1

| 3 | YES |
| :--- | :--- |
| hanoi | NO |
| ionah | YES |
| ac |  |
| wa |  |
| hue |  |

