

## L. Two Strings

time limit per test: 10 seconds🕒  
memory limit per test: 256 megabytes

Given two strings  $s$  and  $t$  with the same length  $n$ , also you will be given  $n$  integers each one corresponds to a character in string  $s$ , let's call them the  $ids$  of the characters  $id_1, id_2, \dots, id_n$ , such that the character with index  $i$  in string  $s$  will have an  $id = id_i$ .

If you can swap any two characters in string  $s$  with the same  $id$ . Can you convert the string  $s$  to the string  $t$  or not?

### Input

The first line will contain only one integer  $T$  — the number of test cases.

The first line of each test case will contain only one integer  $n$  ( $1 \leq n \leq 10^5$ ) — the length of the strings.

The second and the third line will contain the strings  $s$  and  $t$  respectively, each of them will consists from only lower case English letters.

The last line of each test case will contain  $n$  integers  $id_1, id_2, \dots, id_n$  ( $1 \leq id_i \leq 10^5$ ).

### Output

For each test case, output one line contains "YES" if you can convert the string  $s$  to the string  $t$ , otherwise output "NO".

### Example

input	Copy
2 5 abcdd cdabd 1 1 1 1 5 5 abcdd cdabd 1 2 1 3 5	
output	Copy
YES NO	

ICPC Assiut University Training - Juniors Phase 1 Sheets-2022

Public

Participant

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→ Group Contests

- Juniors Phase 1 Practice #5 (Bitmask, Bitset, Bits)
- Juniors Phase 1 Practice #4 ( Binary search , Two pointers )
- Juniors Phase 1 Practice #3 ( STL 2 )
- Juniors Phase 1 Practice #2 ( STL 1 )
- Juniors Phase 1 Practice #1 ( Prefix sum , Frequency Array )

Juniors Phase 1 Practice #3 ( STL 2 ).

Finished

Practice

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→ About Time Scaling

This contest uses time limits scaling policy (depending on a programming language). The system automatically adjusts time limits by the following multipliers for some languages. Despite scaling (adjustment), the time limit cannot be more than 30 seconds. Read the details by the [link](#).

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
<a href="#">311947805</a>	Mar/23/2025 05:50	Accepted
<a href="#">311947460</a>	Mar/23/2025 05:45	Wrong answer on test 2