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## Two Strings

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Problem

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Given two strings,  $a$  and  $b$ , determine if they share a common substring.

**Input Format**

The first line contains a single integer,  $p$ , denoting the number of  $(a, b)$  pairs you must check. Each pair is defined over two lines:

1. The first line contains string  $a$ .
2. The second line contains string  $b$ .

**Constraints**

- $a$  and  $b$  consist of lowercase English letters *only*.
- $1 \leq p \leq 10$
- $1 \leq |a|, |b| \leq 10^5$

**Output Format**

For each  $(a, b)$  pair of strings, print YES on a new line if the two strings share a common substring; if no such common substring exists, print NO on a new line.

**Sample Input**

```
2
hello
world
hi
world
```

**Sample Output**

```
YES
NO
```

**Explanation**

We have  $c = 2$  pairs to check:

1.  $a = \text{"hello"}$ ,  $b = \text{"world"}$ . The substrings "o" and "l" are common to both  $a$  and  $b$ , so we print YES on a new line.
2.  $a = \text{"hi"}$ ,  $b = \text{"world"}$ . Because  $a$  and  $b$  have no common substrings, we print NO on a new line.



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Submissions: 38476  
Max Score: 25  
Difficulty: Easy

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Current Buffer (saved locally, editable)  

C++   

```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8
9 int main() {
10     int n;
11     string s1, s2;
12     cin >> n;
13
14     while (n) {
15         bool found = false;
16         cin >> s1 >> s2;
17         for (int i = 0; i < s1.size(); i++) {
18             auto index = s2.find(s1[i]);
19             if (index != std::string::npos) {
20                 found = true;
21                 break;
22             }
23         }
24
25         cout << (found ? "YES" : "NO") << "\n";
26         n--;
27     }
28     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
29     return 0;
30 }
31
```

Line: 1 Col: 1

[Upload Code as File](#) ☐ Test against custom input

Run Code

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