

Hash Tables: Ransom Note



A kidnapper wrote a ransom note but is worried it will be traced back to him. He found a magazine and wants to know if he can cut out whole words from it and use them to create an untraceable replica of his ransom note. The words in his note are *case-sensitive* and he *must* use whole words available in the magazine, meaning he *cannot* use substrings or concatenation to create the words he needs.

Given the words in the magazine and the words in the ransom note, print **Yes** if he can replicate his ransom note *exactly* using whole words from the magazine; otherwise, print **No**.

Input Format

The first line contains two space-separated integers describing the respective values of m (the number of words in the magazine) and n (the number of words in the ransom note).

The second line contains m space-separated strings denoting the words present in the magazine.

The third line contains n space-separated strings denoting the words present in the ransom note.

Constraints

- $1 \leq m, n \leq 30000$
- $1 \leq \text{length of any word} \leq 5$.
- Each word consists of English alphabetic letters (i.e., a to z and A to Z).
- The words in the note and magazine are *case-sensitive*.

Output Format

Print **Yes** if he can use the magazine to create an untraceable replica of his ransom note; otherwise, print **No**.

Sample Input

```
6 4
give me one grand today night
give one grand today
```

Sample Output

```
Yes
```

Explanation

All four words needed to write an untraceable replica of the ransom note are present in the magazine, so we print **Yes** as our answer.