DefaultDict Tutorial



The *defaultdict* tool is a container in the collections class of Python. It's similar to the usual dictionary (*dict*) container, but it has one difference: The value fields' data type is specified upon initialization.

For example:

```
from collections import defaultdict
d = defaultdict(list)
d['python'].append("awesome")
d['something-else'].append("not relevant")
d['python'].append("language")
for i in d.items():
    print i
```

This prints:

```
('python', ['awesome', 'language'])
('something-else', ['not relevant'])
```

In this challenge, you will be given 2 integers, n and m. There are n words, which might repeat, in word group A. There are m words belonging to word group B. For each m words, check whether the word has appeared in group A or not. Print the indices of each occurrence of m in group A. If it does not appear, print -1.

Constraints

 $1 \le n \le 10000$

 $1 \le m \le 100$

 $1 \leq \textit{ length of each word in the input} \leq 100$

Input Format

The first line contains integers, n and m separated by a space.

The next n lines contains the words belonging to group A.

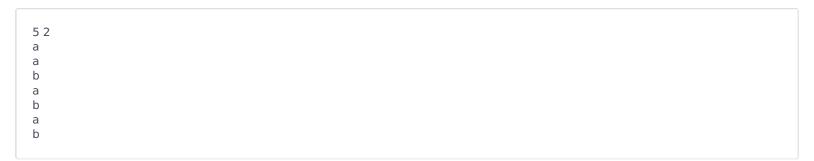
The next m lines contains the words belonging to group B.

Output Format

Output *m* lines.

The i^{th} line should contain the 1-indexed positions of the occurrences of the i^{th} word separated by spaces.

Sample Input



Sample Output

```
1 2 4
3 5
```

Explanation

 $\mbox{\bf 'a'}$ appeared 3 times in positions $1,\,2$ and 4.

 $\mbox{\bf 'b'}$ appeared 2 times in positions 3 and 5.

In the sample problem, if ${}^{{}^{{}}}\mathbf{c}{}^{{}^{{}}}$ also appeared in word group B, you would print -1.