DefaultDict Tutorial

The *defaultdict* tool is a container in the collections class of Python. It's similar to the usual dictionary (*dict*) container, but the only difference is that a defaultdict will have a *default* value if that key has not been set yet. If you didn't use a defaultdict you'd have to check to see if that key exists, and if it doesn't, set it to what you want.

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.

Example

Group A contains 'a', 'b', 'a' Group B contains 'a', 'c'

For the first word in group B, 'a', it appears at positions 1 and 3 in group A. The second word, 'c', does not appear in group A, so print -1.

Expected output:

```
1 3
-1
```

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.

Constraints

$1 \leq n \leq 10000$
$1 \leq m \leq 100$
$1 \leq$ $length\ of\ each\ word\ in\ the\ input \leq 100$

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

```
STDIN   Function
-----   --------
5 2     group A size n = 5, group B size m = 2
a       group A contains 'a', 'a', 'b', 'a', 'b'
a
b
a
b
a       group B contains 'a', 'b'
b
```

Sample Output

```
1 2 4
3 5
```

Explanation

'a' appeared 3 times in positions 1, 2 and 4.
'b' appeared 2 times in positions 3 and 5.
In the sample problem, if **'c'** also appeared in word group B, you would print -1.