

J. Forbidden Word

Time limit: 1.0s **Memory limit:** 256M

Censoring bad words is an important feature in chat applications to maintain a respectful and clean community. Your task is to implement a simple version of this feature.

Given a string S and N forbidden words, replace every occurrence of a forbidden word in S with asterisks ("*"), keeping the original word length. The replacement should be **case-insensitive**, meaning variations like "ok", "OK", "oK", and "Ok" should all be replaced with "***".

Input

- The first line contains a string S ($1 \leq |S| \leq 2 * 10^4$), which may contain uppercase and lowercase English letters and spaces.
- The second line contains an integer N ($1 \leq N \leq 10$), representing the number of forbidden words.
- The third line contains N forbidden words, separated by spaces. Each forbidden word consists only of lowercase English letters and has a length between 1 and 20.

Output

- Print the modified string S after replacing all occurrences of forbidden words with asterisks ("*"), preserving their original length. The replacement must be **case-insensitive**.

Sample

Sample Input 1

```
nice to meet you
2
NICE mee
```

Sample Output 1

```
**** to meet you
```