Sparse Arrays



There is a collection of input strings and a collection of query strings. For each query string, determine how many times it occurs in the list of input strings. Return an array of the results.

Example

```
strings = ['ab', 'ab', abc']

queries = ['ab', 'abc', 'bc']
```

There are 2 instances of 'ab', 1 of 'abc' and 0 of 'bc'. For each query, add an element to the return array, results = [2, 1, 0].

Function Description

Complete the function *matchingStrings* in the editor below. The function must return an array of integers representing the frequency of occurrence of each query string in *strings*.

matchingStrings has the following parameters:

- string strings[n] an array of strings to search
- string queries[q] an array of query strings

Returns

int[q]: an array of results for each query

Input Format

The first line contains and integer n, the size of strings[]. Each of the next n lines contains a string strings[i]. The next line contains q, the size of queries[]. Each of the next q lines contains a string queries[i].

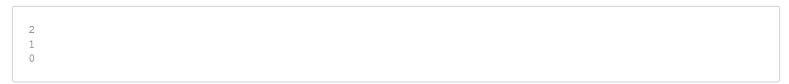
Constraints

```
egin{aligned} 1 &\leq n \leq 1000 \ 1 &\leq q \leq 1000 \ 1 &\leq |strings[i]|, |queries[i]| \leq 20 \ . \end{aligned}
```

Sample Input

```
4
aba
baba
aba
xzxb
3
aba
xzxb
aba
```

Sample Output



Explanation

Here, "aba" occurs twice, in the first and third string. The string "xzxb" occurs once in the fourth string, and "ab" does not occur at all.