

Sparse Arrays



There is a collection of N strings (There can be multiple occurrences of a particular string). Each string's length is no more than **20** characters. There are also Q queries. For each query, you are given a string, and you need to find out how many times this string occurs in the given collection of N strings.

Input Format

The first line contains N , the number of strings.

The next N lines each contain a string.

The $N + 2^{\text{nd}}$ line contains Q , the number of queries.

The following Q lines each contain a query string.

Constraints

$$1 \leq N \leq 1000$$

$$1 \leq Q \leq 1000$$

$$1 \leq \text{length of any string} \leq 20$$

Sample Input

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

Sample Output

```
2
1
0
```

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.