Sparse Arrays

There are N strings. 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 occurred previously.

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

$1 \leq N \leq 1000$
$1 \leq Q \leq 1000$
$1 \leq length\ of\ any\ string \leq 20$

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.