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D. Repository

Time Limit: 1.0 Seconds Memory Limit: 65536K

Description

When you go shopping, you can search in repository for available merchandises by the computers and internet. First you give the search system a name about something, then the system responds with the results. Now you are given a lot merchandise names in repository and some queries, and required to simulate the process.

Input

There is only one case. First there is an integer P ($1 \leq P \leq 10000$) representing the number of the merchandise names in the repository. The next P lines each contain a string (its length isn't beyond 20, and all the letters are lowercase). Then there is an integer Q ($1 \leq Q \leq 100000$) representing the number of the queries. The next Q lines each contains a string (the same limitation as foregoing descriptions) as the searching condition.

Output

For each query, you just output the number of the merchandises, whose names contain the search string as their substrings.

Sample Input

```
20
ad
ae
af
ag
ah
ai
aj
ak
al
ads
add
ade
adf
adg
adh
adi
adj
adk
adl
aes
5
b
a
d
ad
s
```

Sample Output

0
20
11
11
2

Source: Multi-School Training Contest #4 [Hosted By HDU]

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