18. Vowels

Given a string array that contains *n* elements, each composed of lowercase English letters, and *q* queries, each query of the format *l-r*, for each query, determine how many strings starting from index *l* and ending at index *r* have vowels as the first and last character. Vowels are in *{a,e,i,o,u}*.

Example

strArr = ['aba','bcb','ece','aa','e']
queries = ['1-3','2-5','2-2']

These strings represent two dash delimited integers *l* and *r*, the start and end indices of the interval, inclusive. Using *1*-based indexing in the string array, the interval *1-3* contains two strings that start and end with a vowel: 'aba' and 'ece'. The interval *2-5* also has three. The third interval, from *2-2*, the only element in the interval, 'bcb' does not begin and end with a vowel. The return array for the queries is *[2, 3, 0]*.

Function Description

Complete the *hasVowels* function in the editor below. It must return an array of integers that represent the result of each query in the order given.

hasVowels has the following parameters.
strArr string[]: an array of *n* strings
query string[]: an array of *q* strings, each of which describes an interval *l-r* using integers delimited by a dash

Constraints

- $1 \le n, q \le 10^5$
- $1 \le l \le r \le n$
- $1 \le$ *size of strArr[i]* ≤ 10

▼ Input Format For Custom Testing

The first line contains an integer, *n*, that denotes the number of elements in *strArr*.
Each line *i* of the *n* subsequent lines (where $1 \le i \le n$) contains a string that describes *strArr[i]*.
The next line contains an integer, *q*, denoting the number of elements in *query*.
Each line *j* of the *q* subsequent lines (where $0 \le j < q$) contains a string describing *query[j]*.

▼ Sample Case 0

Sample Input For Custom Testing

```
STDIN         Function
-----         --------
5       →     strArr[] size n = 5
aab     →     strArr = [ "aab", "a", "bcd", "awe", "bbbbbu" ]
a
bcd
awe
bbbbbu
2       →     query[] size n = 2
2-3     →     query = [ "2-3", "4-5" ]
4-5
```

Sample Output

```
1
1
```

Explanation

n = 5
strArr = ['aab', 'a', 'bcd', 'awe', 'bbbbbu']
q = 2
query = ['2-3', '4-5']
For the first query, *2-3*, only the string at *index 2* has a vowel as the first and last character. For the second query, *4-5*, only the string at *index 4* has vowels as the first and last characters.

▼ Sample Case 1

Sample Input For Custom Testing

```
STDIN         Function
-----         --------
3       →     strArr[] size n = 3
yy      →     strArr = [ "yy", "u", "oe" ]
u
oe
2       →     query[] size n = 2
1-2     →     query = [ "1-2", "2-3" ]
2-3
```

Sample Output

```
1
2
```

Explanation

n = 3
strArr = ['yy', 'u', 'oe']
q = 2
query = ['1-2', '2-3']

For the first query, *1-2*, only the string at *index 2* has a vowel as the first and last character. For the

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```
1  > #include <bits/stdc++.h> ···
9
10   // Complete the hasVowels function below.
11   vector<int> hasVowels(vector<string> strArr, vector<string>
     query) {
12
13
14   }
15
16 > int main() ···
```

Line: 9 Col: 1

Test Results | Custom Input | Run | Submit Code

second query, *2-3*, both the strings at indices *2* and *3* have vowels as the first and last characters.