## Word search puzzle P87801_en

Consider an $r \times c$ board where each cell has a letter and a number that indicates the value of that cell. Given several words $w$, compute the maximum number of points achievable by placing $w$ horizontally (to the right) or vertically (down), so that all the letters match those of the board.

### Input

Input consists of several cases, each with the dimensions $r$ and $c$, followed by $r$ rows with $c$ lowercase letters each, followed by $r$ rows with $c$ natural numbers each. Then comes a number $t$ followed by $t$ nonempty words made up of lowercase letters. You can assume that $r$ and $c$ are between 1 and 100, that the value of each cell is between 0 and $10^6$, and that the given words do not have more than 100 letters.

### Output

For each word of each case, print the maximum possible score placing the word horizontally or vertically. If the word cannot be found, print "`no`".

### Sample input 1

```
3 4
a b c a
b c a e
c a b d
10 20 30 40
50 60 70 80
15 25 35 45
3
bca
cabb
a

1 1
z
1000000
2
y
z
```

### Sample output 1

```
180
no
70
no
1000000
```

### Problem information

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