Designer PDF Viewer ★

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Problem Solving ★★★★

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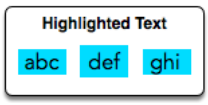
When a contiguous block of text is selected in a PDF viewer, the selection is highlighted with a blue rectangle. In this PDF viewer, each word is highlighted independently. For example:



There is a list of 26 character heights aligned by index to their letters. For example, 'a' is at index 0 and 'z' is at index 25. There will also be a string. Using the letter heights given, determine the area of the rectangle highlight in mm^2 assuming all letters are $1mm$ wide.

Example

$h = [1, 3, 1, 3, 1, 4, 1, 3, 2, 5, 5, 5, 5, 1, 1, 5, 5, 1, 5, 2, 5, 5, 5, 5, 5]$ $word = 'torn'$

The heights are $t = 2, o = 1, r = 1$ and $n = 1$. The tallest letter is 2 high and there are 4 letters. The hightlighted area will be $2 * 4 = 8mm^2$ so the answer is 8.

Function Description

Complete the designerPdfViewer function in the editor below.

designerPdfViewer has the following parameter(s):

- int h[26]: the heights of each letter
- string word: a string

Returns

- int: the size of the highlighted area

Input Format

The first line contains 26 space-separated integers describing the respective heights of each consecutive lowercase English letter, ascii[a-z].
The second line contains a single word consisting of lowercase English alphabetic letters.

Constraints

- $1 \leq h[?] \leq 7$, where $?$ is an English lowercase letter.
- $word$ contains no more than 10 letters.

Sample Input 0

```
1 3 1 3 1 4 1 3 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
abc
```

Sample Output 0

```
9
```

Explanation 0

We are highlighting the word abc:

Letter heights are $a = 1$, $b = 3$ and $c = 1$. The tallest letter, b, is $3mm$ high. The selection area for this word is $3 \cdot 1mm \cdot 3mm = 9mm^2$.

Note: Recall that the width of each character is $1mm$.

Sample Input 1

```
1 3 1 3 1 4 1 3 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 7
zaba
```

Sample Output 1

```
28
```

Explanation 1

The tallest letter in $zaba$ is z at $7mm$. The selection area for this word is $4 \times 1mm \times 7mm = 28mm^2$.

Change Theme Language Python 3

```python
#!/bin/python3

import math
import os
import random
import re
import sys

#
# Complete the 'designerPdfViewer' function below.
#
# The function is expected to return an INTEGER.
# The function accepts following parameters:
#  1. INTEGER_ARRAY h
#  2. STRING word
#

def designerPdfViewer(h, word):
    # Write your code here
    max_height = 0
    for c in word:
        height = h[ord(c) - ord('a')]
        if height > max_height:
            max_height = height
    return max_height * len(word)


if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')

    h = list(map(int, input().rstrip().split()))

    word = input()
```

EMACS Line: 27 Col: 5

Upload Code as File | Test against custom input | Run Code | Submit Code

You have earned 20.00 points!

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92% 820.2/850

Congratulations

You solved this challenge. Would you like to challenge your friends?

Next Challenge

- Test case 0
- Test case 1
- Test case 2
- Test case 3
- Test case 4
- Test case 5
- Test case 6

Loading testcase ...