Designer PDF Viewer

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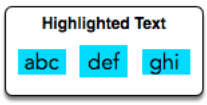
When you select a contiguous block of text in a PDF viewer, the selection is highlighted with a blue rectangle. In a new kind of PDF viewer, the selection of each word is independent of the other words; this means that each rectangular selection area forms independently around each highlighted word. For example:



In this type of PDF viewer, the *width* of the rectangular selection area is equal to the number of letters in the word times the width of a letter, and the *height* is the maximum height of any letter in the word.

Consider a word consisting of lowercase English alphabetic letters, where each letter is $1mm$ wide. Given the height of each letter in millimeters (mm), find the total area that will be highlighted by blue rectangle in mm^2 when the given word is selected in our new PDF viewer.

Input Format

The first line contains 26 space-separated integers describing the respective heights of each consecutive lowercase English letter (i.e., $h_a, h_b, h_c, \ldots, h_y, h_z$).
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.

Output Format

Print a single integer denoting the area of highlighted rectangle when the given word is selected. The unit of measurement for this is square millimeters (mm^2), but you must only print the integer.

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 5
abc
```

Sample Output 0

```
9
```

Explanation 0

We are highlighting the word `abc`:

1. The tallest letter in `abc` is `b`, and $h_b = 3$. 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 5 7
zaba
```

Sample Output 1

```
28
```

Explanation 1

We are highlighting the word $zaba$:

The tallest letter in $zaba$ is z and h_z is 7. The selection area for this word is $4.1mm.7mm = 28mm^2$.

Current Buffer (saved locally, editable) Java 7

```
1  import java.io.*;
2  import java.util.*;
3  import java.text.*;
4  import java.math.*;
5  import java.util.regex.*;
6
7  public class Solution {
8
9      public static void main(String[] args) {
10         Scanner in = new Scanner(System.in);
11         int[] h = new int[26];
12         for(int h_i=0; h_i < 26; h_i++){
13             h[h_i] = in.nextInt();
14         }
15         String word = in.next();
16     }
17 }
18
```

Line: 1 Col: 1

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