Question **1**

Correct

Marked out of 10.00

You are provided with the individual weights of the 26 alphabetic characters.

You are expected to find the weight of a given string as follows:

Weight of the string = Product of weights of words in the string

Weight of a word = Sum of weights of the alphabets in the word

Note:

While finding weight of a word, special consideration has to be given to the first and last characters of the word. If the first character or the last character of the word has a negative weight, we need to add the ‘alphabetic position’ of that character to the weight of that character. The ‘alphabetic position’ of a = A = 1, ‘alphabetic position’ of b = B = 2, and so on till z = Z = 26.

Let’s illustrate this with couple of examples.

Example 1:

Array input1[] specifying the individual weight of the 26 alphabetic characters = {15, 16, 1, -2, -13, 61, 11, 4, 3, 19, -4, 17, -3, 90, -65, 67, 12, 0, 13, 2, 3, 43, 21, -17, 2, 42}.

String whose weight is to be found = ”Wipro Limited”

Weight of “Wipro” = 21 + 3 + 67 + 0 + (-65) = 21 + 3 + 67 + 0 + (-65 + 15) = 41.

Note: Note here that the weight of the last character ‘o’ of the word ”Wipro” is -65 which is negative, so we have to add the ‘alphabetic position’ of ‘o’ (which is 15).

Weight of “Limited” = 17 + 3 + (-3) + 3 + 2 + (-13) + (-2) = 17 + 3 + (-3) + 3 + 2 (-13) + (-2 + 4) = 11.

Note: Note here that the weight of the last character ‘d’ of the word “Limited” is -2 which is negative, so we have to add the ‘alphabetic position’ of ‘d’ (which is 4).

Therefore, Weight of the string will be = 41 x 11 = 451.

Example 2:

Array input1[] specifying the individual weight of the 26 alphabetic characters = {12, 11, 6, 1, -1, 23, 12, 1, 28, -43, 6, 98, 11, 2, 7, 88, 9, -4, -54, 25, 19, -12, -32, 65, 3, -9}.

String whose weight is to be found = ”Spring AND Hibernate”

Weight of the string will be = (Weight of “Spring”) x (Weight of “AND”) x (Weight of “Hibernate”)

Weight of “Spring” = (-54 + 19) + 88 + (-4) + 28 + 2 + 12 = 91

Note: Note here that the weight of the first character ‘S’ of the word “Spring” is -54 which is negative, so we have to add the ‘alphabetic position’ of ‘S’ (which is 19).

Weight of “AND” = 12 + 2 + 1 = 15.

Weight of “Hibernate” = 1 + 28 + 11 + (-1) + (-4) + 2 + 12 + 25 + (-1 + 5) = 78.

Note: Note here that the weight of the last character ‘e’ of the word “Hibernate” is -1 which is negative, so we have to add the ‘alphabetic position’ of ‘e’ (which is 5).

Therefore, Weight of the string will be = 91 x 15 x 78 = 106470.

Notes:

1) input1[] is an array of 26 integers representing the individual weights of the 26 alphabetic characters from A to Z.

2) input2 is the string (of one or more words) whose weight has to be found.

3) You can assume that the string will contain only alphabetic character and every word will be separated by only one space character.

4) The weights and alphabetic positions of the alphabets are not case-sensitive, i.e., these are the same for both upper and lower case letters.

For example:

Input	Result

`15 16 1 -2 -13 61 11 4 3 19 -4 17 -3 90 -65 67 12 0 13 2 3 43 21 -17 2 42`
`Wipro Limited`
	`451`

`12 11 6 1 -1 23 12 1 28 -43 6 98 11 2 7 88 9 -4 -54 25 19 -12 -32 65 3 -9`
`Spring AND Hibernate`
	`106470`

Answer: (penalty regime: 0 %)

```
def weight(word,weights):
    total=0
    for i,char in enumerate(word):
        index=ord(char.upper())-ord('A')
        char1=weights[index]
        if(i==0 or i==len(word)-1) and char1<0:
            char1+=index+1
        total+=char1
    return total
weights=list(map(int,input().split()))
words=input().split()
res=1
for word in words:
    res*=weight(word,weights)
print(res)
```

	Input	Expected	Got	

✓	`15 16 1 -2 -13 61 11 4 3 19 -4 17 -3 90 -65 67 12 0 13 2 3 43 21 -17 2 42`
	`Wipro Limited`
		451	451	✓

✓	`12 11 6 1 -1 23 12 1 28 -43 6 98 11 2 7 88 9 -4 -54 25 19 -12 -32 65 3 -9`
	`Spring AND Hibernate`
		106470	106470	✓

Passed all tests! ✓