## Prathuksha S.V., 241501149

## Week 10

Q1) Given a string, s, consisting of alphabets and digits, find the frequency of each digit in the given string.

## Input Format

The first line contains a string, num which is the given number.

#### Constraints

 $1 \le len(num) \le 1000$ 

All the elements of num are made of English alphabets and digits.

**Output Format** 

Print ten space-separated integers in a single line denoting the frequency of each digit

from 0 to 9.

Sample Input 0 a1147205t6 Sample Output 0 0 2 1 0 1 1 1 1 0 0 Question 1
Correct
Marked out of 1.00
P Flag question

Given a string, s, consisting of alphabets and digits, find the frequency of each digit in the given string.

## **Input Format**

The first line contains a string, *num* which is the given number.

#### Constraints

#### $1 \le len(num) \le 1000$

All the elements of num are made of English alphabets and digits.

#### **Output Format**

Print ten space-separated integers in a single line denoting the frequency of each digit from 0 to 9.

#### Sample Input 0

a11472o5t6

#### Sample Output 0

0210111100

	Input	Expected	Got							
/	a11472o5t6	0 2 1 0 1 1 1 1 0 0	0 2 1 0 1 1 1 1 0 0	~						
~	lw4n88j12n1	0 2 1 0 1 0 0 0 2 0	0 2 1 0 1 0 0 0 2 0	~						
,	1v888861256338ar@ekk	1112012050	1112012050	~						

Q2) Today, Monk went for a walk in a garden. There are many trees in the garden and each tree has an English alphabet on it. While Monk was walking, he noticed that all trees with vowels on it are not in good state. He decided to take care of them. So, he asked you to tell him the count of such trees in the garden.

Note: The following letters are vowels: 'A', 'E', 'I', 'O', 'U', 'a', 'e', 'i', 'o' and 'u'.

Input Format:

The first line consists of an integer T denoting the number of test cases.

Each test case consists of only one string, each character of string denoting the alphabet (may be lowercase or uppercase) on a tree in the garden.

Output Format:

For each test case, print the count in a new line.

Constraints:

 $1 \le T \le 10$ 

 $1 \le length of string \le 105$ 

Sample Input

2

nBBZLaosnm

JHklsnZtTL

Sample Output

2

1

```
Question 2
                      Today, Monk went for a walk in a garden. There are many trees in the garden and each tree has an English alphabet on it. While Monk was walking, he noticed that
Correct
                     all trees with vowels on it are not in good state. He decided to take care of them. So, he asked you to tell him the count of such trees in the garden.
Marked out of
1.00
                      Note: The following letters are vowels: 'A', 'E', 'I', 'O', 'U', 'a', 'e', 'i', 'o' and 'u'.
P Flag question
                     The first line consists of an integer \emph{T} denoting the number of test cases.
                     Each test case consists of only one string, each character of string denoting the alphabet (may be lowercase or uppercase) on a tree in the garden.
                     Output:
                     For each test case, print the count in a new line.
                     Constraints:
                     1 ≤ T ≤ 10
                     1 \le length of string \le 10^5
                     SAMPLE INPUT
                     nBBZLaosnm
                     JHklsnZtTL
```

```
1 #include <stdio.h>
2 #include <string.h>
4 - int main() {
                   int T;
scanf("%d", &T);
                   while (T--) {
    char str[100005];
    scanf("%s", str);
    10
   11
                           int count = 0;
for (int i = 0; i < strlen(str); i++) {
   char ch = str[i];
   if (ch == 'A' || ch == 'E' || ch == 'I' || ch == '0' || ch == 'U' ||
      ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u') {
      count++:</pre>
    12
   13
14
    15
   16
17
                                        count++;
    18
                          }
   19
   20
   21
                          printf("%d\n", count);
   22
   23
   25 }
```

### Output:

SAMPLE OUTPUT

2

	Input	Expected	Got	
~	2 nBBZLaosnm JHkIsnZtTL	2	2	~
~	2 nBBZLaosnm JHkIsnZtTL	2	2	~

Q3)Given a sentence, s, print each word of the sentence in a new line.

# **Input Format**

The first and only line contains a sentence, s.

Constraints

 $1 \le len(s) \le 1000$ 

**Output Format** 

Print each word of the sentence in a new line.

Sample Input

This is C

Sample Output

This

is

С

Question **3**Correct
Marked out of 1.00

F Flag question

```
Given a sentence, s, print each word of the sentence in a new line.

Input Format

The first and only line contains a sentence, s.

Constraints

1 ≤ len(s) ≤ 1000

Output Format

Print each word of the sentence in a new line.

Sample Input 0

This is C

Sample Output 0

This
is
C
```

```
1 #include <stdio.h>
2 #include <string.h>
 4 - int main() {
    char sentence[1000];
 6
 7
              // Read the sentence
              fgets(sentence, sizeof(sentence), stdin);
 8
 9
             // Iterate over the sentence and print each word
char *word = strtok(sentence, " ");
while (word != NULL) {
   printf("%s\n", word);
   word = strtok(NULL, " ");
}
10
11
12 +
13
14
15
16
17
              return 0;
18 }
```

Output:

	Input	Expected	Got	
~	This is C	This is C	This is C	~
~	Learning C is fun	Learning C is fun	Learning C is fun	~

# Q4) Input Format

You are given two strings, a and b, separated by a new line. Each string will consist of lower-case Latin characters ('a'-'z').

## **Output Format**

In the first line print two space-separated integers, representing the length of a and b respectively.

In the second line print the string produced by concatenating a and b (a + b).

In the third line print two strings separated by a space, a' and b'. a' and b' are the same as a and b, respectively, except that their first characters are swapped.

Sample Input

abcd

ef

Sample Output

4 2

abcdef

ebcd af

Question 4 Incorrect Marked out of 1.00 §\* Flag question

#### Input Format

You are given two strings, a and b, separated by a new line. Each string will consist of lower case Latin characters ('a'-'z').

#### **Output Format**

In the first line print two space-separated integers, representing the length of  $\boldsymbol{a}$  and  $\boldsymbol{b}$  respectively.

In the second line print the string produced by concatenating a and b (a + b).

In the third line print two strings separated by a space,  $a^*$  and  $b^*$ .  $a^*$  and  $b^*$  are the same as a and b, respectively, except that their first characters are swapped.

#### Sample Input

abcd

ef

## Sample Output

42

abcdef

ebcd af

## Output:

