Question 1

Question text

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

 $1 \le \text{len(num)} \le 1000$

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

Explanation 0

In the given string:

- · 1 occurs two times.
- · 2, 4, 5, 6 and 7 occur one time each.

The remaining digits 0, 3, 8 and 9 don't occur at all.

Program:

```
#include<stdio.h>
int main()
{
       char str[1000];
       scanf("%s",str);
       int hash[10]={0};
       int temp;
       for(int i=0;str[i]!='\0';i++)
       {
               temp=str[i]-'0';
               if(temp \le 9\&temp \ge 0)
                      hash[temp]++;
       for(int i=0;i<=9;i++)
               printf("%d ",hash[i]);
       return 0;
}
```

Output:

Question 2

Question text

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:

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:

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

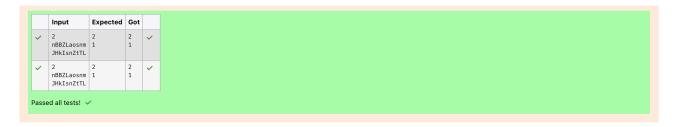
Explanation

In test case 1, a and o are the only vowels. So, count=2

Program:

```
#include<stdio.h>
int main()
{
       int t;
       scanf("%d",&t);
       while(t-) {
               char str[100000];
               int count=0;
               scanf("%s",str);
               for(int i=0;str[i]!='\0';i++) {
                       char c= str[i];
                       if((c=='a')||(c=='e')||(c=='i')||(c=='o')||(c=='u')||(c=='A')||(c=='E')||(c=='l')||(c=='O')||(c=='U'))|
               printf("%d\n",count);
       }
       return 0;
}
```

Output:



Question 3

Question text

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

 $1 \le \text{len(s)} \le 1000$

Output Format

Print each word of the sentence in a new line.

Sample Input 0

This is C

Sample Output 0

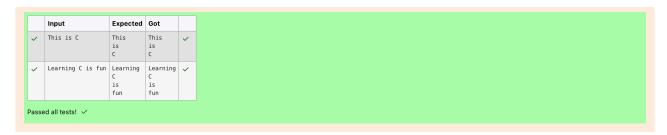
This is C

Explanation 0

In the given string, there are three words ["This", "is", "C"]. We have to print each of these words in a new line.

Program:

Output:



Question 4

Question text

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
42
abcdef
ebcd af
Explanation
a = "abcd"
b = "ef"
lal = 4
lbl = 2
a + b = "abcdef"
a' = "ebcd"
b' = "af"
Program:
#include<stdio.h>
int main()
{
       char str1[10],str2[10],t;
       int i=0,j=0;
       int count1=0,count2=0;
       scanf("%s",str1);
       scanf("%s",str2);
       while(str1[i]!='\0')
       {
              count1++;
              i++;
       }
       while(str2[j]!= '\0')
       {
              count2++;
              j++;
       }
       printf("%d %d\n",count1,count2);
       printf("%s%s\n",str1,str2);
       t=str1[0];
       str1[0]=str2[0];
       str2[0]=t;
       printf("%s %s",str1,str2);
       return 0;
}
```

Output:

