

Week 10

Question 1:

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.

Output Format:

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

Sample Input 1:

a11472o5t6

Sample Output 1:

0 2 1 0 1 1 1 1 0 0

Program:

| | |
|------------------|-----------------------------------|
| Status | Finished |
| Started | Monday, 23 December 2024, 9:07 PM |
| Completed | Monday, 23 December 2024, 9:23 PM |
| Duration | 15 mins 27 secs |

:

```

1  #include<stdio.h>
2  #include<string.h>
3  #include<ctype.h>
4  int main(){
5      char s[1000];
6      int arr[]={0,0,0,0,0,0,0,0,0,0};
7      scanf("%s",s);
8      for(int i=0;i<strlen(s);i++){
9          if (isdigit(s[i])){
10             arr[s[i]-'0']+=1;
11         }
12     }
13     for(int i=0;i<10;i++){
14         printf("%d ",arr[i]);
15     }
16     return 0;
17 }

```

Output:

| | 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 | ✓ |
| ✓ | 1v888861256338ar9ekk | 1 1 1 2 0 1 2 0 5 0 | 1 1 1 2 0 1 2 0 5 0 | ✓ |

Passed all tests! ✓

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 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.

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.

Sample Input 1:

2

nBBZLaosnm

JHkIsnZtTL

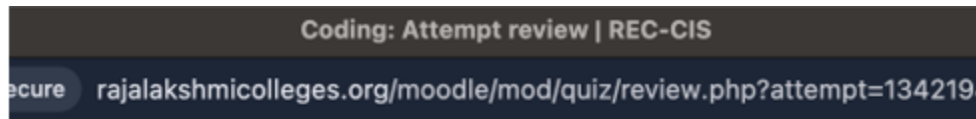
Sample Output 1:

2

1

Program:

| | |
|-----------|-----------------------------------|
| Status | Finished |
| Started | Monday, 23 December 2024, 9:07 PM |
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Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 #include<string.h>
3 #include<ctype.h>
4 int main(){
5     int n,c;
6     char vow[]={'a','e','i','o','u'};
7     scanf("%d",&n);
8     for(int w=0;w<n;w++){
9         char s[100000];
10        c=0;
11        scanf("%s",s);
12        for(int i=0;i<strlen(s);i++){
13            for(int j=0;j<5;j++){
14                if(tolower(s[i])==vow[j]){
15                    c++;
16                }
17            }
18        }
19        printf("%d\n",c);
20    }
21    return 0;
22 }
```

Output:

| | Input | Expected | Got | |
|---|-------------------------------|----------|--------|---|
| ✓ | 2 nBBZLaosnm JHkIsnZtTL | 2 1 | 2 1 | ✓ |
| ✓ | 2 nBBZLaosnm JHkIsnZtTL | 2 1 | 2 1 | ✓ |

Passed all tests! ✓

Question 3:

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.

Sample Input 1:

This is C

Sample Output 1:

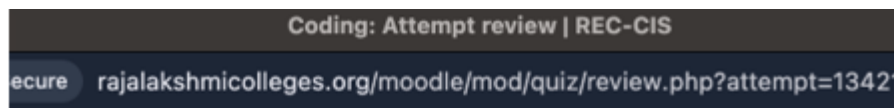
This

is

C

Program:

| | |
|-----------|-----------------------------------|
| Status | Finished |
| Started | Monday, 23 December 2024, 9:07 PM |
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the given string, there are three words ["This", "is", "C"]. We have to print these words in a new line.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     char s[1000];
5     fgets(s,1000,stdin);
6     for(int i=0;i<strlen(s);i++){
7         printf("%c", (s[i]!=' ')?s[i]:'\n');
8     }
9     return 0;
10 }
```

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 | ✓ |

Passed all tests! ✓

Question 4:

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 1:

abcd

ef

Sample Output 1:

4 2

abcdef

ebcd af

Program:

| | |
|------------------|-----------------------------------|
| Status | Finished |
| Started | Monday, 23 December 2024, 9:07 PM |
| Completed | Monday, 23 December 2024, 9:23 PM |
| Duration | 15 mins 27 secs |

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     int n,m;
5     scanf("%d%d",&n,&m);
6     char a[n],b[m],s[n],temp;
7     scanf("%s %s",a,b);
8     strcpy(s,a);
9     printf("%ld %ld\n",strlen(a),strlen(b));
10    printf("%s\n",strcat(s,b));
11    temp=a[0];
12    a[0]=b[0];
13    b[0]=temp;
14    printf("%s %s",a,b);
15    return 0;
16 }

```

Output:

| | Input | Expected | Got | |
|---|------------|--------------------------|--------------------------|---|
| ✓ | abcd ef | 4 2 abcdef ebcd af | 4 2 abcdef ebcd af | ✓ |

Passed all tests! ✓