

Question **1**

Correct

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

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

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

0 2 1 0 1 1 1 1 0 0

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.

Answer: (penalty regime: 0 %)

```

1  #include <stdio.h>
2  #include <string.h>
3
4  int main() {
5      char s[1001];
6      int freq[10] = {0};    // Frequency array for digits 0-9
7
8      scanf("%s", s);        // Read the input string
9
10     // Traverse the string
11     for(int i = 0; s[i] != '\0'; i++) {
12         if(s[i] >= '0' && s[i] <= '9') {    // Check if character is a digit
13             freq[s[i] - '0']++;            // Convert char digit to index
14         }
15     }
16
17     // Print frequencies of digits 0 to 9
18     for(int i = 0; i < 10; i++) {
19         printf("%d", freq[i]);
20         if(i < 9) printf(" ");
21     }
22
23     return 0;
24 }
```

	Input
✓	a11472o5t6
✓	lw4n88j12n1
✓	1v88886l256338ar0ekk
✓	8a36a4r26079184sr06u54rdr234u70653w7a32o181o8980780958s3u5y27m69gr4a14382f8g552l
✓	b3n47b5xf13qlx233rg4u2c949i623e34nt5661se06b675utbpy258wz6338558461761d61x340h1v

Passed all tests! ✓

Question **2**

Correct

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

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

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.

Answer: (penalty regime: 0 %)

```

1  #include <stdio.h>
2
3  int main() {
4      char s[1001];
5
6      // Read the full sentence including spaces
7      fgets(s, sizeof(s), stdin);
8
9      // Print each word on a new line
10     for (int i = 0; s[i] != '\0'; i++) {
11         if (s[i] == ' ') {
12             printf("\n");    // New line when space is found
13         } else {
14             printf("%c", s[i]);
15         }
16     }
17
18     return 0;
19 }

```

	Input	Expected	Got	
✓	This is C	This is C	This is C	✓
✓	Learning C is fun	Learning C is fun	Learning C is fun	✓
✓	How is that	How is that	How is that	✓
✓	The first and only line contains a sentence	The first and only line contains a sentence	The first and only line contains a sentence	✓

Passed all tests! ✓

Question **3**

Correct

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
```

Explanation

`a = "abcd"`

`b = "ef"`

`|a| = 4`

`|b| = 2`

a + b = "abcdef"

a' = "ebcd"

b' = "af"

Answer: (penalty regime: 0 %)

```
1  #include <stdio.h>
2  #include <string.h>
3
4  int main() {
5      char a[1000], b[1000];
6
7      // Read two strings
8      scanf("%s", a);
9      scanf("%s", b);
10
11     // Print lengths
12     printf("%lu %lu\n", strlen(a), strlen(b));
13
14     // Print concatenation
15     printf("%s%s\n", a, b);
16
17     // Swap first characters (only if both strings are non-empty)
18     char a_prime[1000], b_prime[1000];
19     strcpy(a_prime, a);
20     strcpy(b_prime, b);
21
22     if (strlen(a) > 0 && strlen(b) > 0) {
23         char temp = a_prime[0];
24         a_prime[0] = b_prime[0];
25         b_prime[0] = temp;
26     }
27
28     // Print swapped result
29     printf("%s %s\n", a_prime, b_prime);
30
31     return 0;
32 }
```

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

	Input	Expected	Got	
✓	abcd xy	4 2 abcdxy xbcd ay	4 2 abcdxy xbcd ay	✓

Passed all tests! ✓