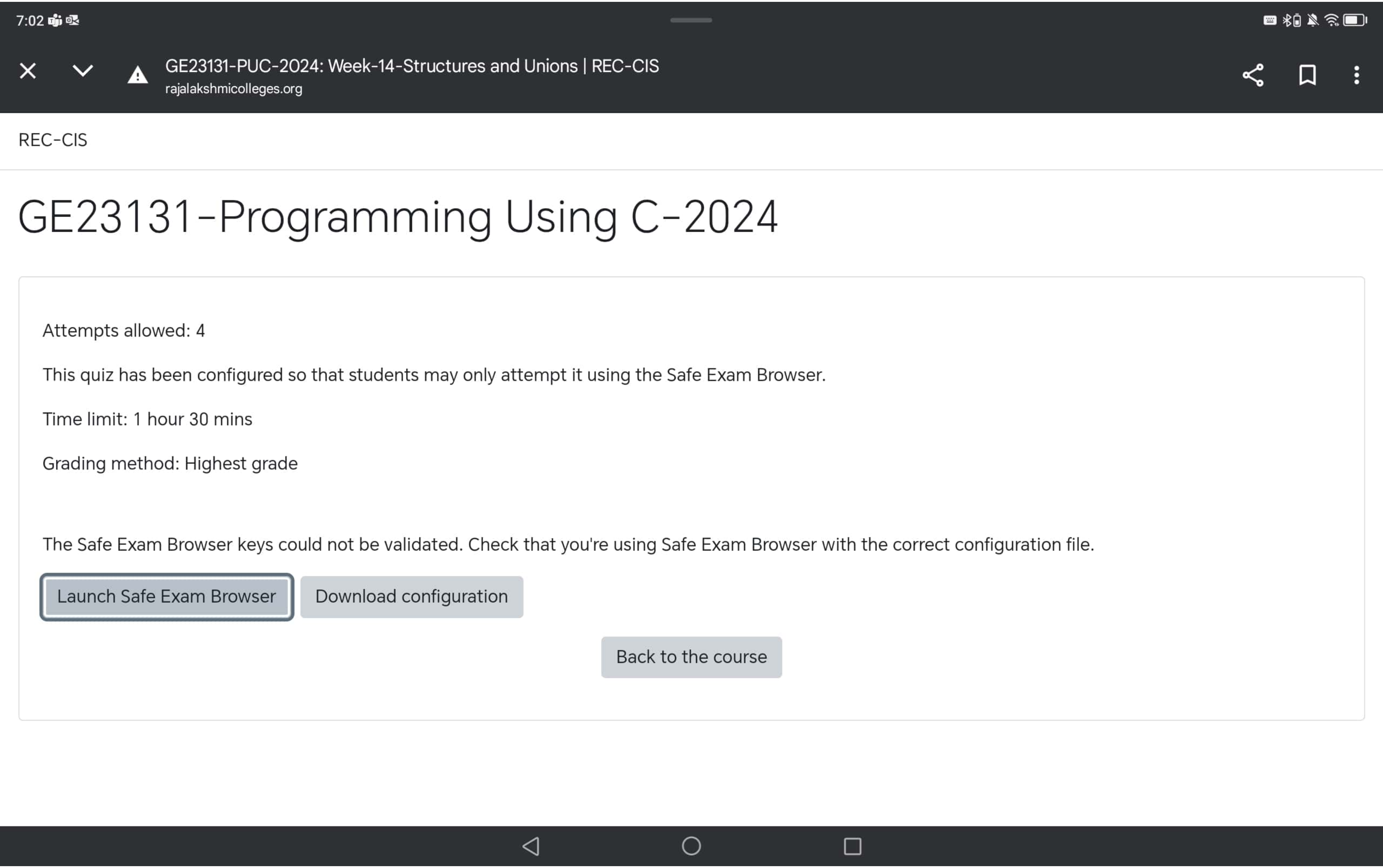

GE23131-PUC-2024: Week-14-Structures and Unions | REC-CIS

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GE23131-Programming Using C-2024

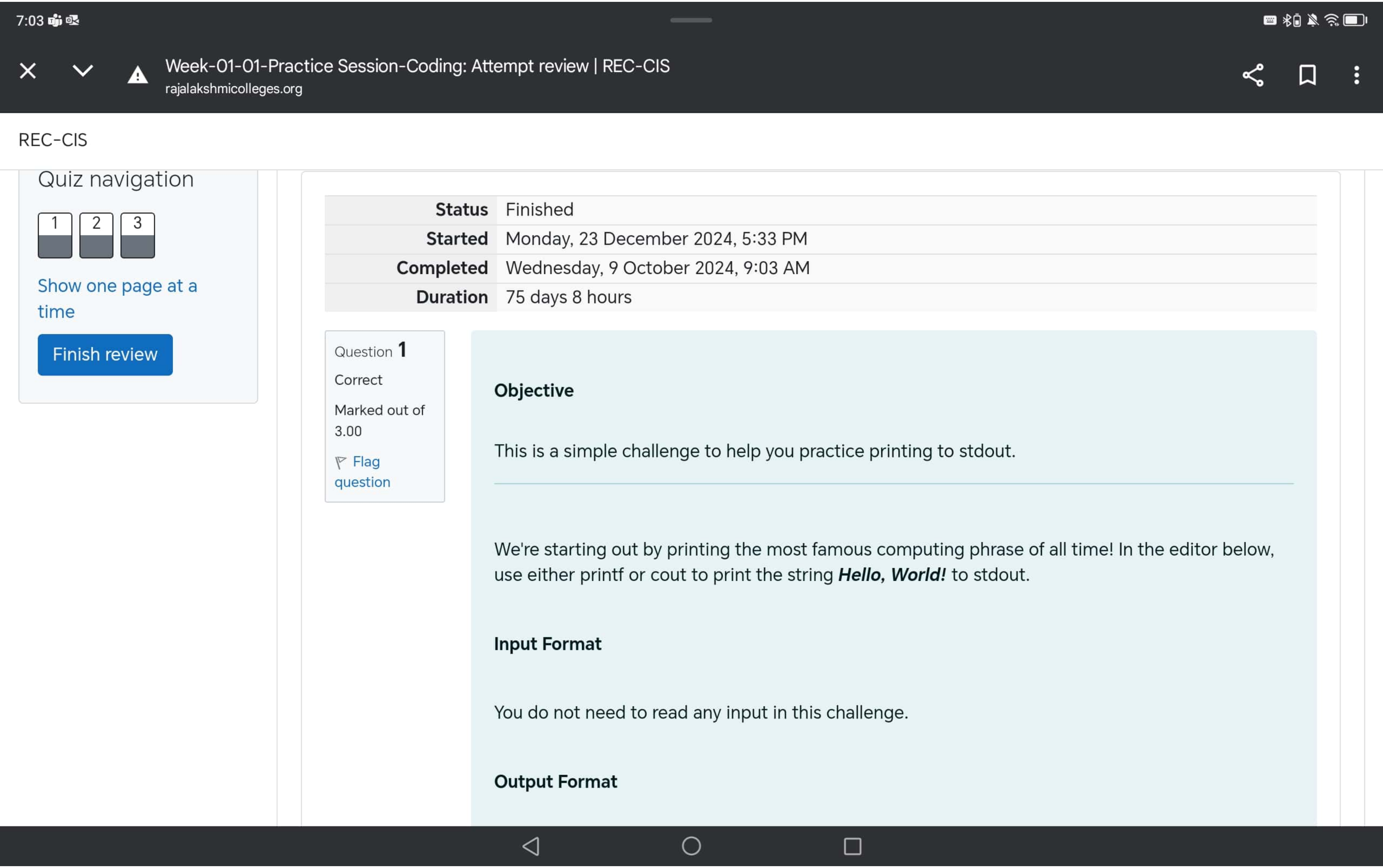
Attempts allowed: 4

This quiz has been configured so that students may only attempt it using the Safe Exam Browser.

Time limit: 1 hour 30 mins

Grading method: Highest grade

The Safe Exam Browser keys could not be validated. Check that you're using Safe Exam Browser with the correct configuration file.



Week-01-01-Practice Session-Coding: Attempt review | REC-CIS
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Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Wednesday, 9 October 2024, 9:03 AM
Duration	75 days 8 hours

Question **1**

Correct

Marked out of 3.00

Objective

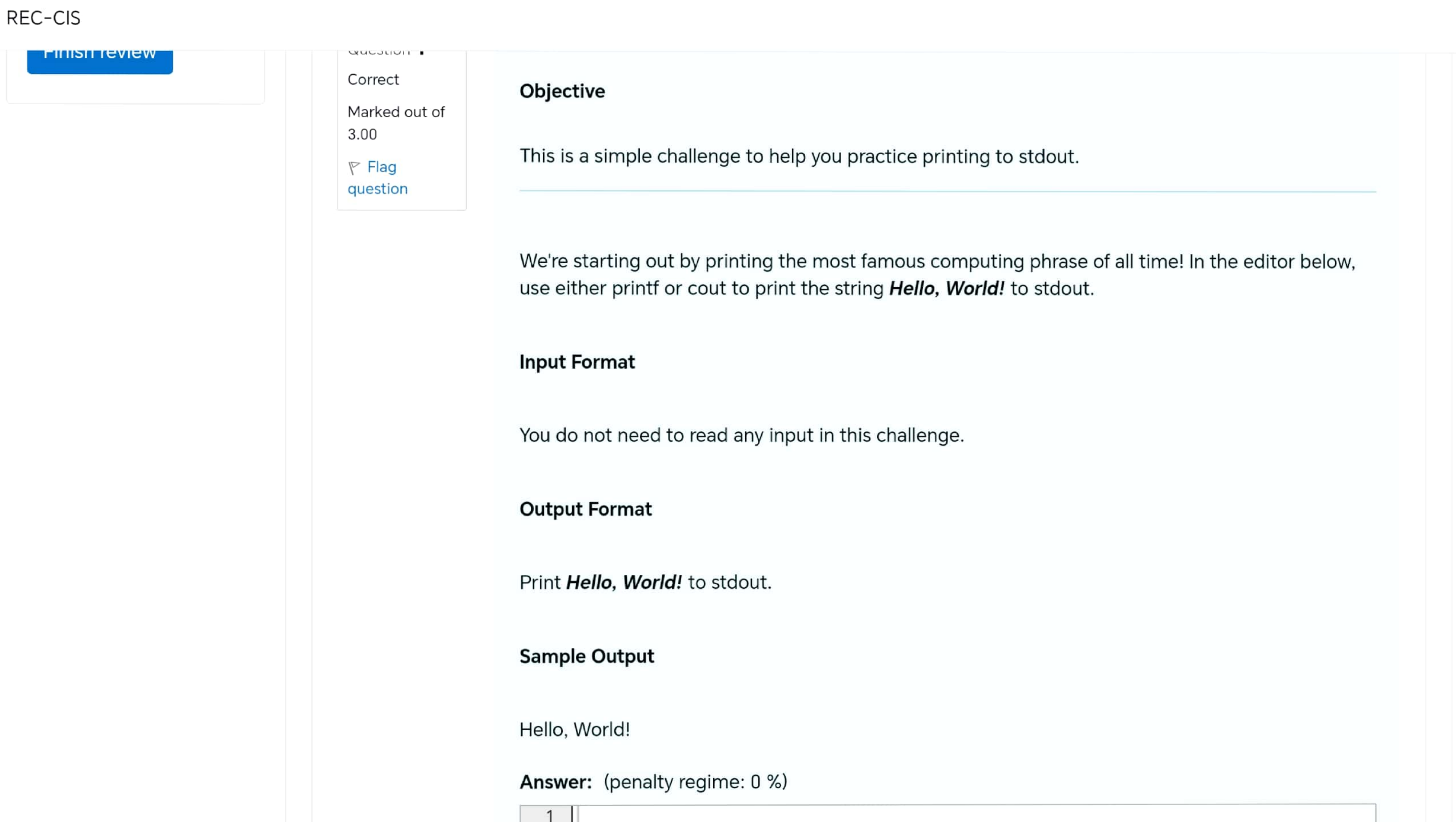
This is a simple challenge to help you practice printing to stdout.

We're starting out by printing the most famous computing phrase of all time! In the editor below, use either printf or cout to print the string ***Hello, World!*** to stdout.

Input Format

You do not need to read any input in this challenge.

Output Format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Question 1

Correct

Marked out of 3.00

Objective

This is a simple challenge to help you practice printing to stdout.

We're starting out by printing the most famous computing phrase of all time! In the editor below, use either printf or cout to print the string ***Hello, World!*** to stdout.

Input Format

You do not need to read any input in this challenge.

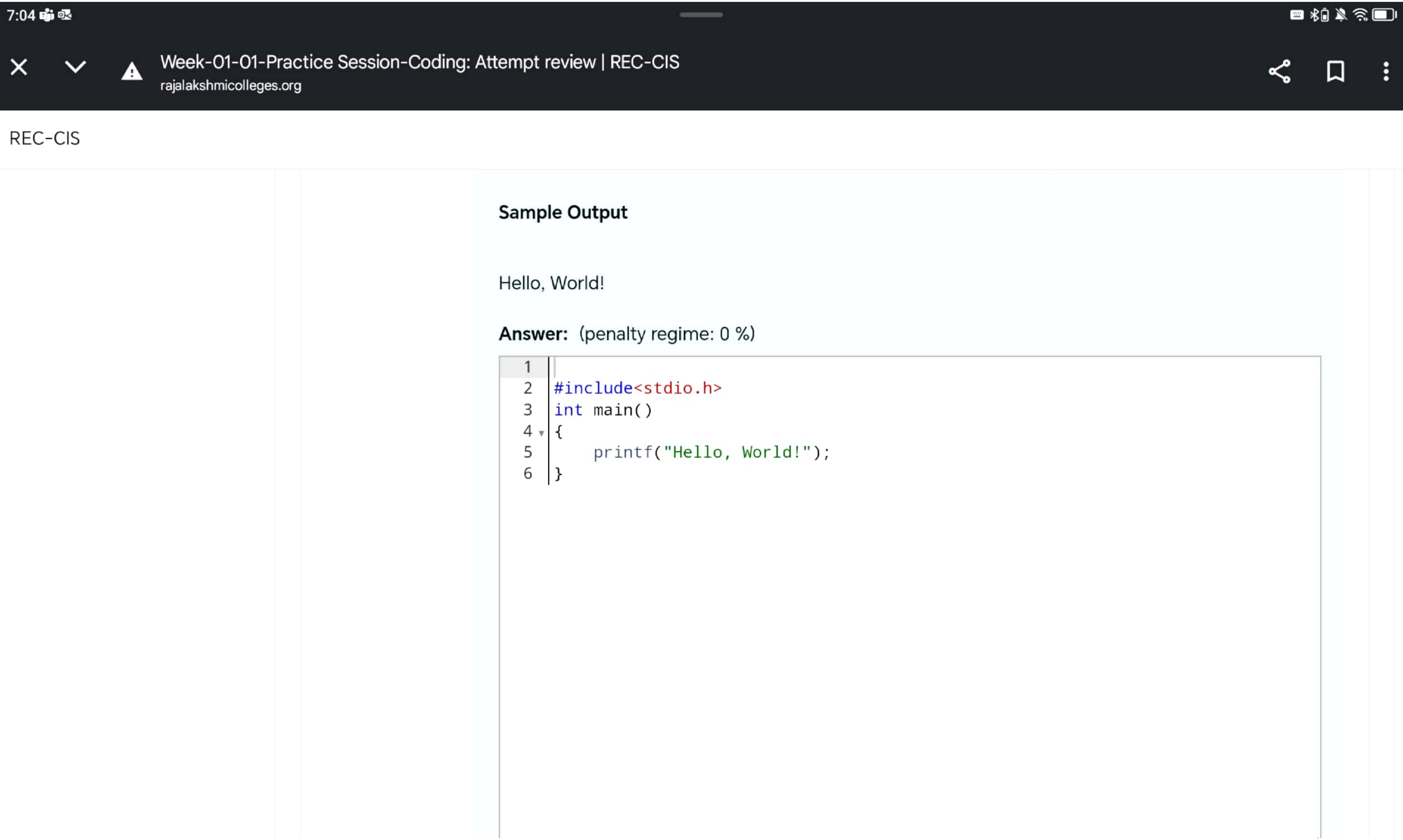
Output Format

Print ***Hello, World!*** to stdout.

Sample Output

```
Hello, World!
```

Answer: (penalty regime: 0 %)



7:04

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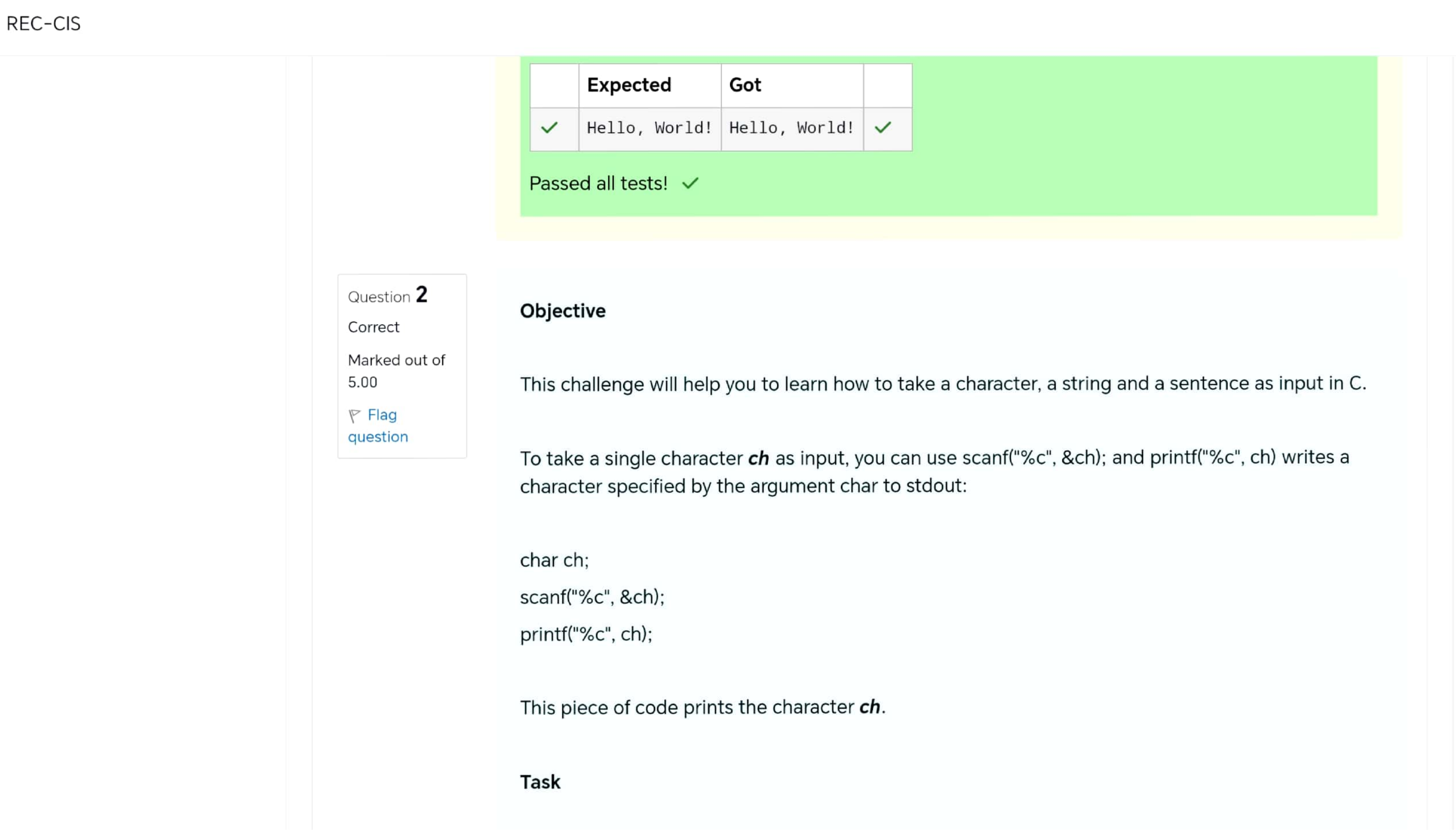
Sample Output

Hello, World!

Answer: (penalty regime: 0 %)

```

#include<stdio.h>
int main()
{
    printf("Hello, World!");
}
```



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	Expected	Got	
✓	`Hello, World!`	`Hello, World!`	✓

Passed all tests! ✓

Question **2**

Correct

Marked out of 5.00

Flag question

Objective

This challenge will help you to learn how to take a character, a string and a sentence as input in C.

To take a single character ***ch*** as input, you can use scanf("%c", &ch); and printf("%c", ch) writes a character specified by the argument char to stdout:

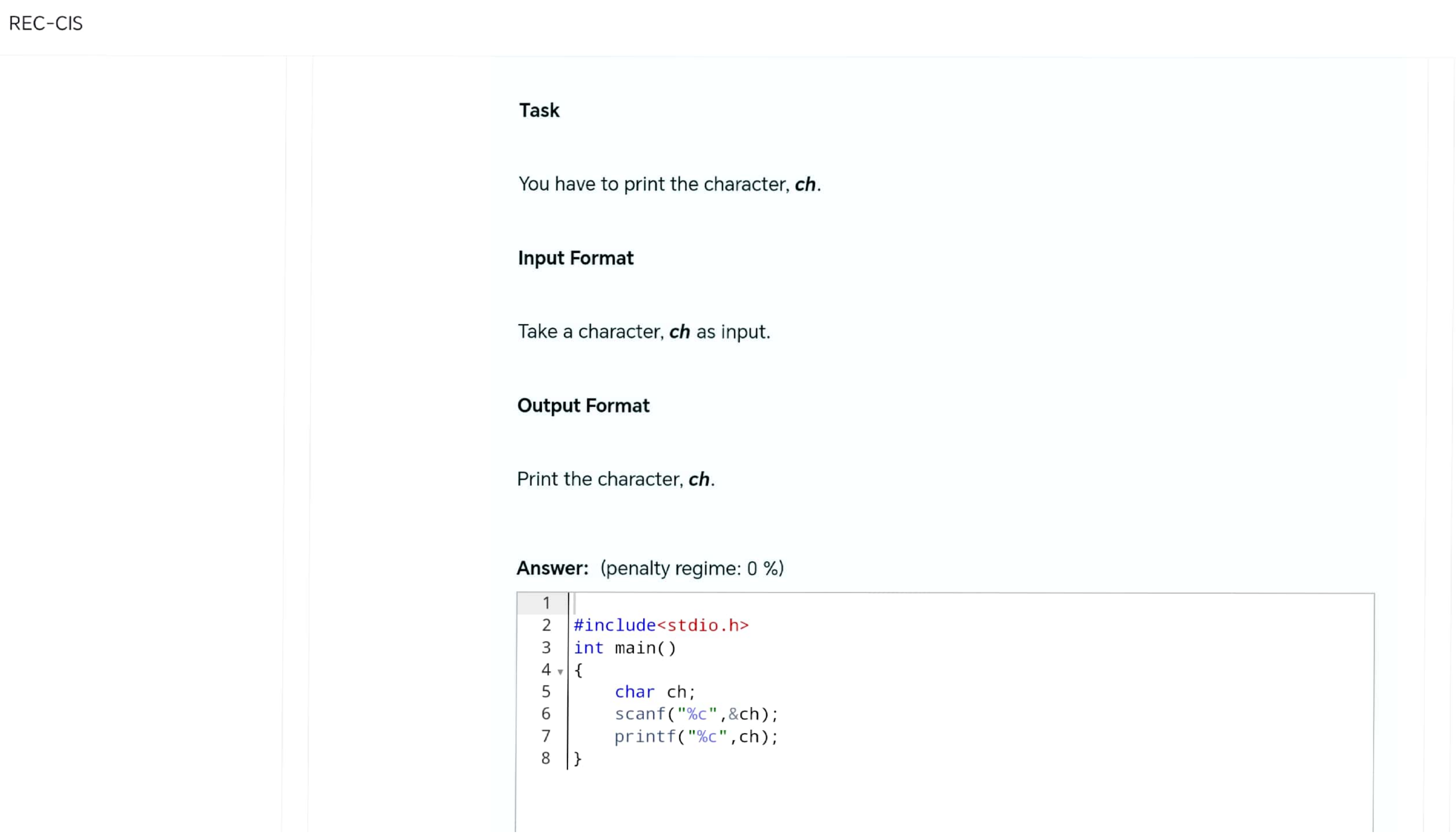
char ch;

scanf("%c", &ch);

printf("%c", ch);

This piece of code prints the character ***ch***.

Task



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Task

You have to print the character, ***ch***.

Input Format

Take a character, ***ch*** as input.

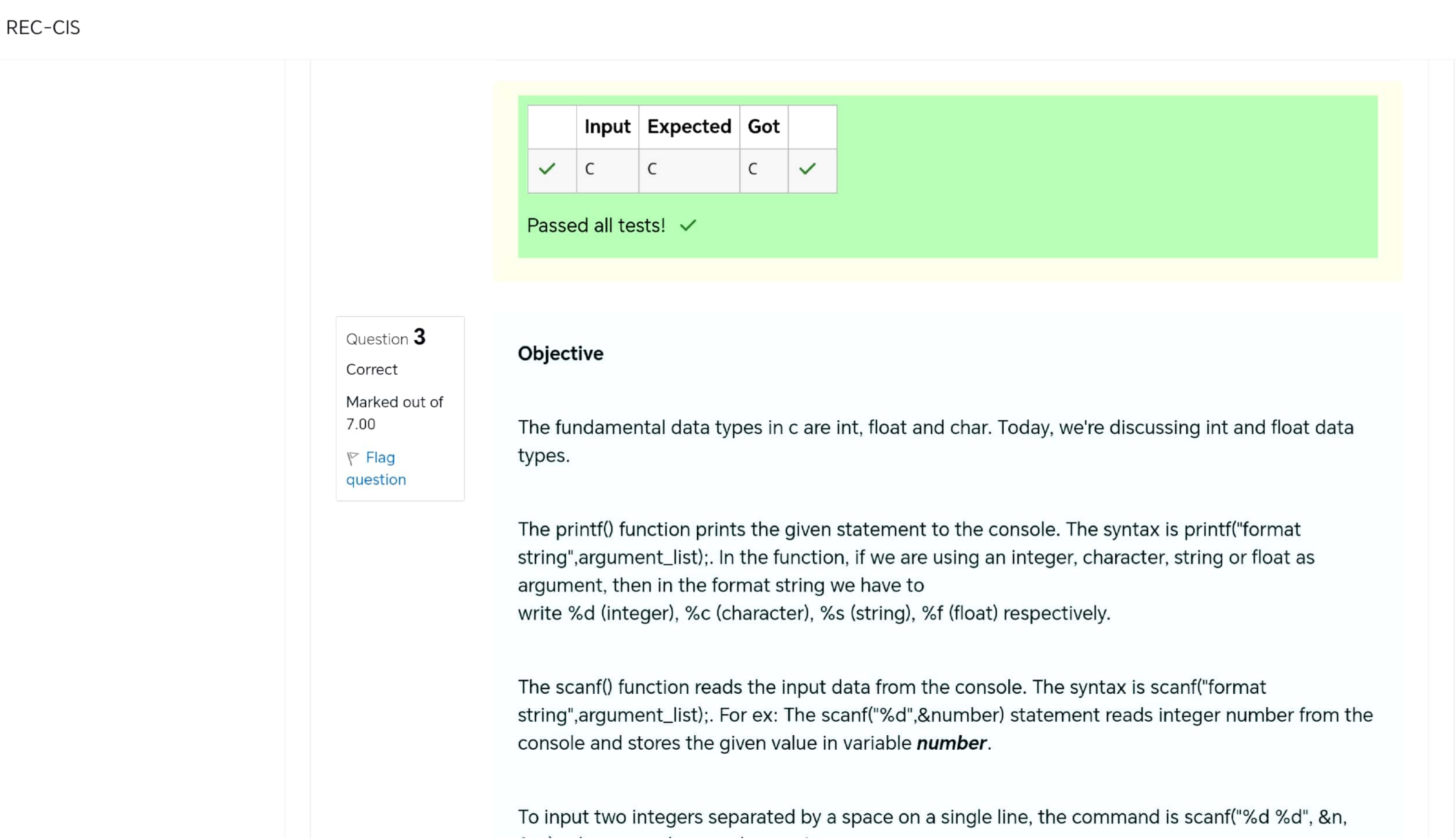
Output Format

Print the character, ***ch***.

Answer: (penalty regime: 0 %)

```

#include<stdio.h>
int main()
{
    char ch;
    scanf("%c",&ch);
    printf("%c",ch);
}
```



	Input	Expected	Got	
✓	C	C	C	✓

Passed all tests! ✓

Question 3

Correct

Marked out of 7.00

Flag question

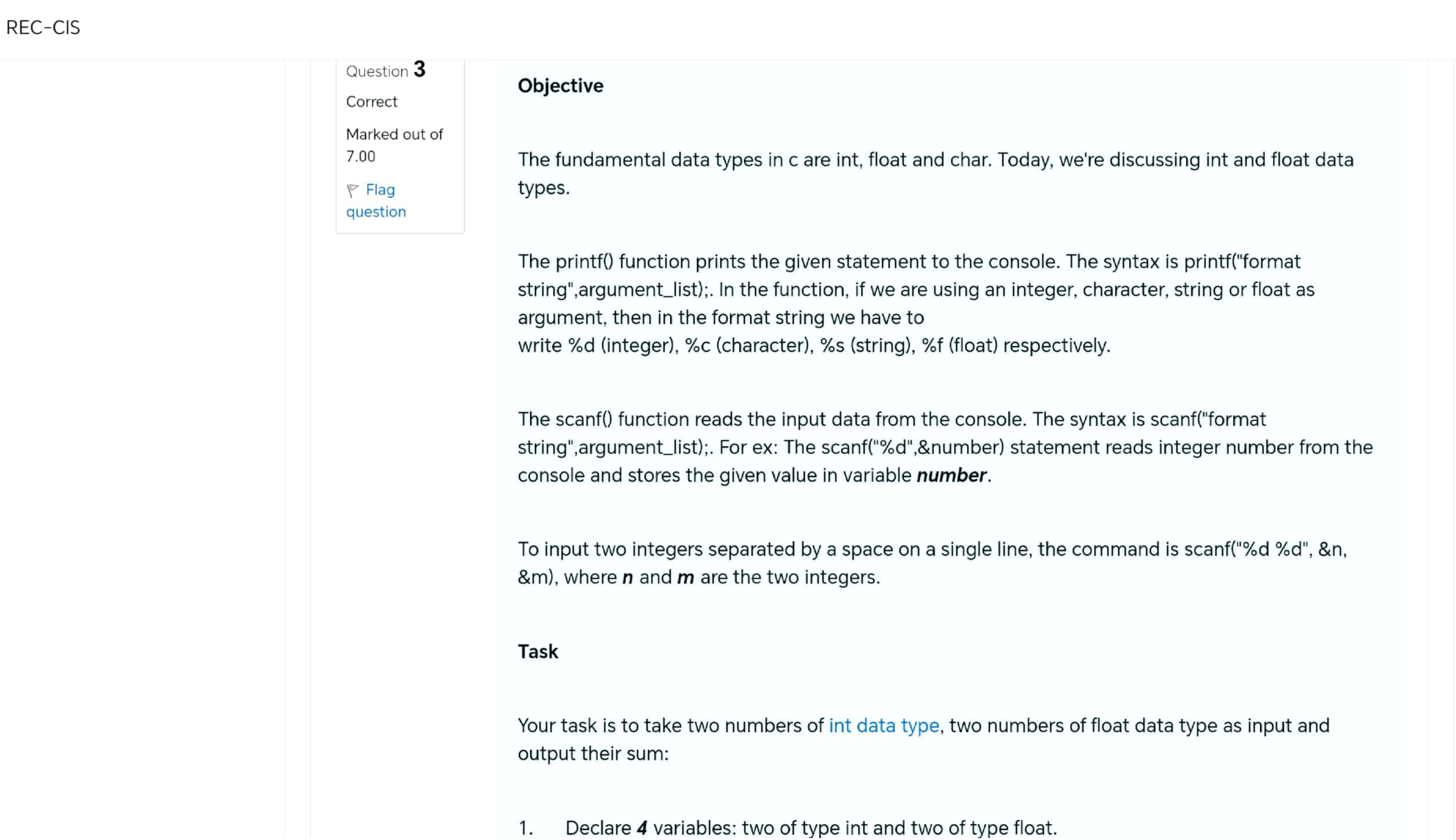
Objective

The fundamental data types in c are int, float and char. Today, we're discussing int and float data types.

The printf() function prints the given statement to the console. The syntax is printf("format string",argument_list);. In the function, if we are using an integer, character, string or float as argument, then in the format string we have to
write %d (integer), %c (character), %s (string), %f (float) respectively.

The scanf() function reads the input data from the console. The syntax is scanf("format string",argument_list);. For ex: The scanf("%d",&number) statement reads integer number from the console and stores the given value in variable ***number***.

To input two integers separated by a space on a single line, the command is scanf("%d %d", &n,



Question 3

Correct

Marked out of 7.00

Objective

The fundamental data types in c are int, float and char. Today, we're discussing int and float data types.

The printf() function prints the given statement to the console. The syntax is printf("format string",argument_list);. In the function, if we are using an integer, character, string or float as argument, then in the format string we have to write %d (integer), %c (character), %s (string), %f (float) respectively.

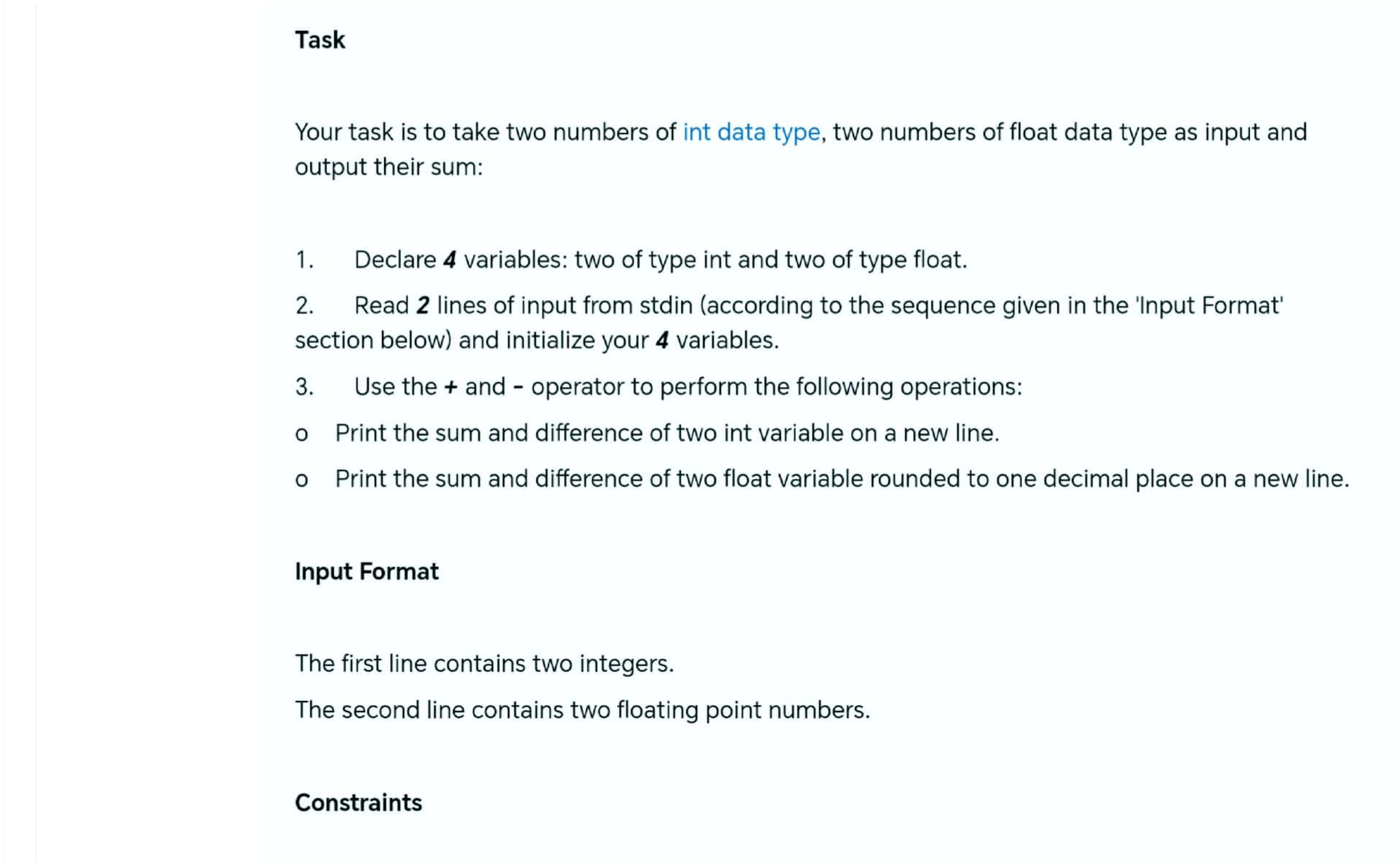
The scanf() function reads the input data from the console. The syntax is scanf("format string",argument_list);. For ex: The scanf("%d",&number) statement reads integer number from the console and stores the given value in variable ***number***.

To input two integers separated by a space on a single line, the command is scanf("%d %d", &n, &m), where ***n*** and ***m*** are the two integers.

Task

Your task is to take two numbers of int data type, two numbers of float data type as input and output their sum:

1. Declare ***4*** variables: two of type int and two of type float.



Task

Your task is to take two numbers of int data type, two numbers of float data type as input and output their sum:

1. Declare ***4*** variables: two of type int and two of type float.
2. Read ***2*** lines of input from stdin (according to the sequence given in the 'Input Format' section below) and initialize your ***4*** variables.
3. Use the ***+*** and ***-*** operator to perform the following operations:

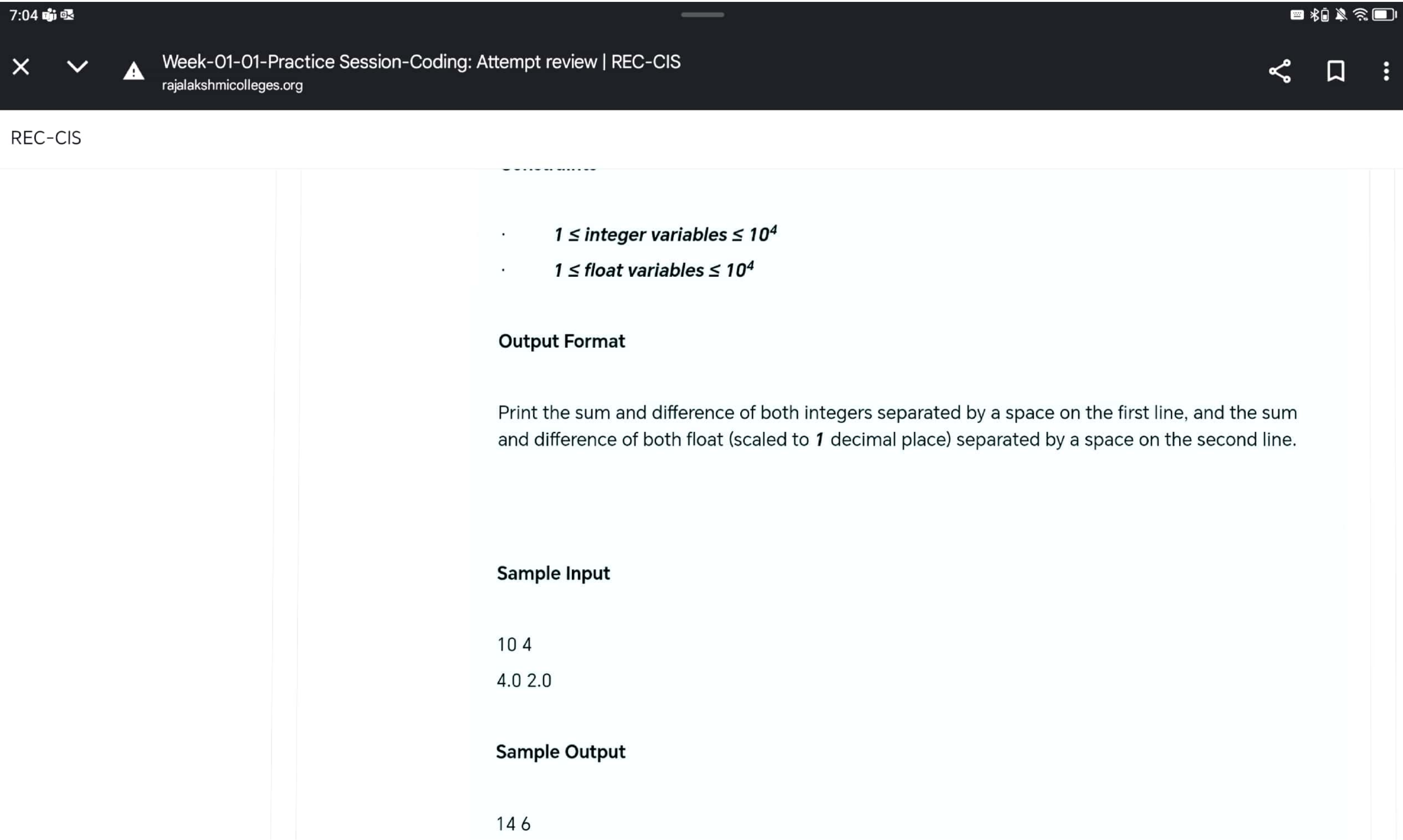
- Print the sum and difference of two int variable on a new line.
- Print the sum and difference of two float variable rounded to one decimal place on a new line.

Input Format

The first line contains two integers.

The second line contains two floating point numbers.

Constraints



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- *$1 \leq$ integer variables $\leq 10^4$*
- *$1 \leq$ float variables $\leq 10^4$*

Output Format

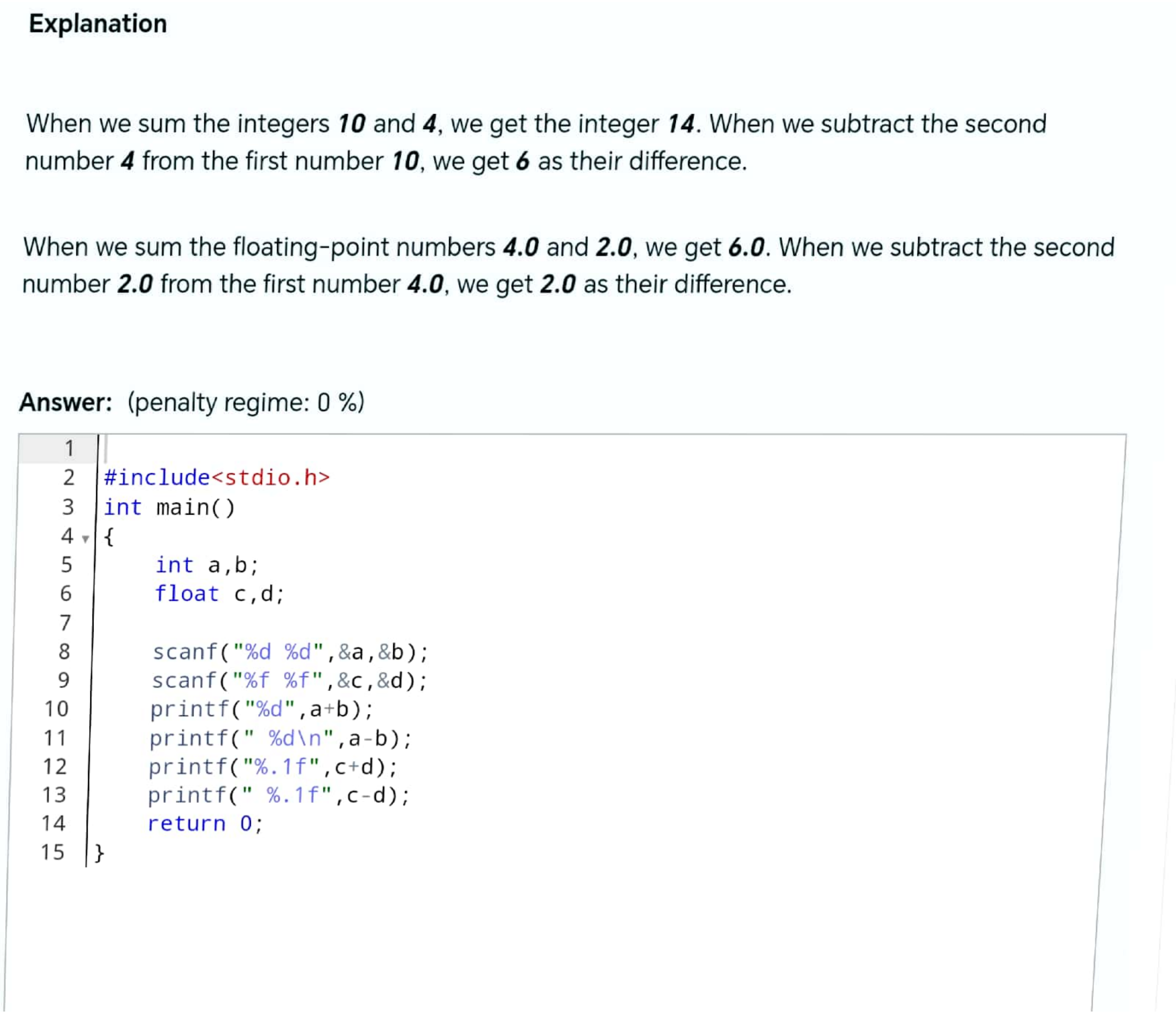
Print the sum and difference of both integers separated by a space on the first line, and the sum and difference of both float (scaled to ***1*** decimal place) separated by a space on the second line.

Sample Input

```
10 4
4.0 2.0
```

Sample Output

```
14 6
```



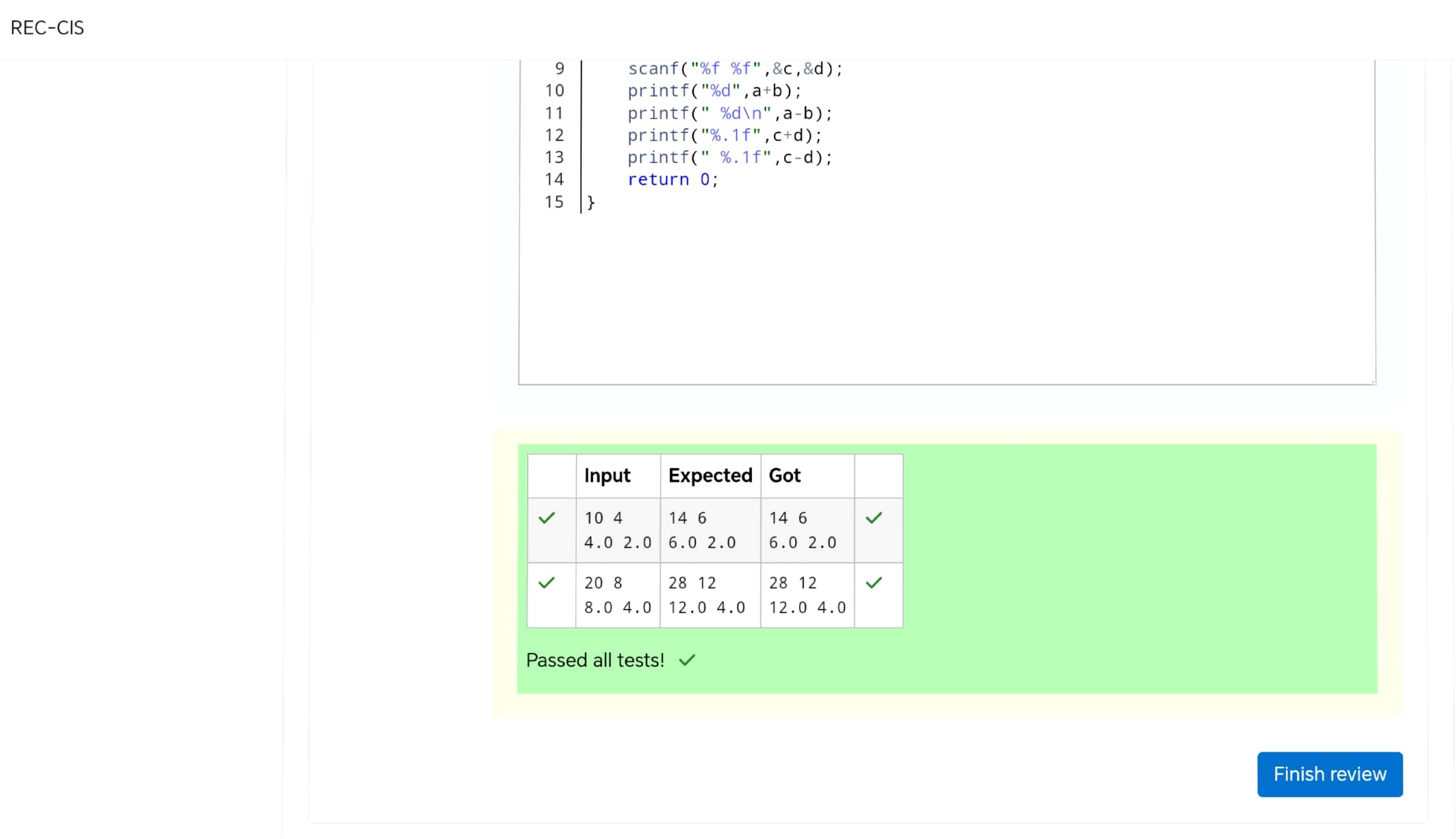
Explanation

When we sum the integers ***10*** and ***4***, we get the integer ***14***. When we subtract the second number ***4*** from the first number ***10***, we get ***6*** as their difference.

When we sum the floating-point numbers ***4.0*** and ***2.0***, we get ***6.0***. When we subtract the second number ***2.0*** from the first number ***4.0***, we get ***2.0*** as their difference.

Answer: (penalty regime: 0 %)

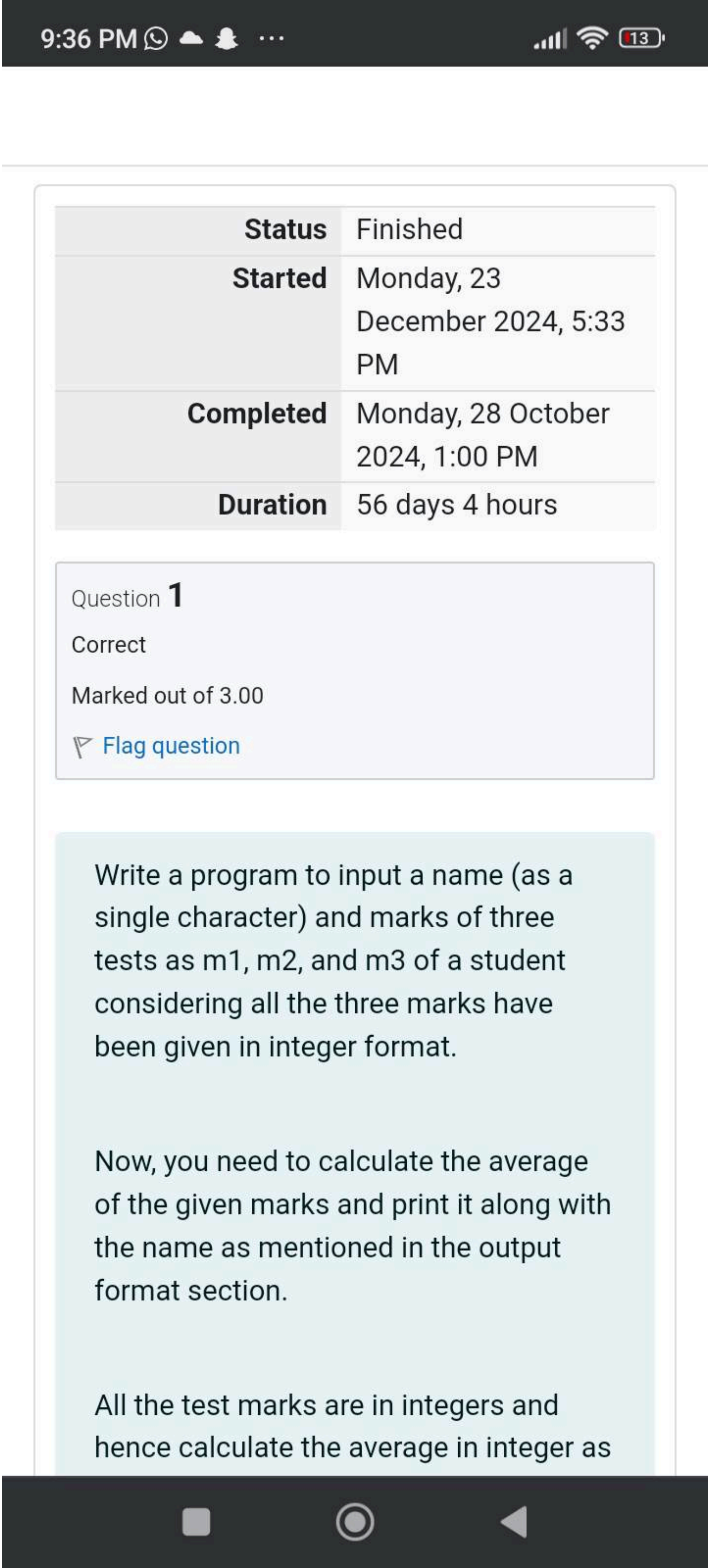
```

#include<stdio.h>
int main()
{
    int a,b;
    float c,d;

    scanf("%d %d",&a,&b);
    scanf("%f %f",&c,&d);
    printf("%d",a+b);
    printf(" %d\n",a-b);
    printf("%.1f",c+d);
    printf(" %.1f",c-d);
    return 0;
}
```



```
    scanf("%f %f",&c,&d);
    printf("%d",a+b);
    printf(" %d\n",a-b);
    printf("%.1f",c+d);
    printf(" %.1f",c-d);
    return 0;
}
```

	Input	Expected	Got	
✓	10 4 4.0 2.0	14 6 6.0 2.0	14 6 6.0 2.0	✓
✓	20 8 8.0 4.0	28 12 12.0 4.0	28 12 12.0 4.0	✓

Passed all tests! ✓



Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Monday, 28 October 2024, 1:00 PM
Duration	56 days 4 hours

Question **1**

Correct

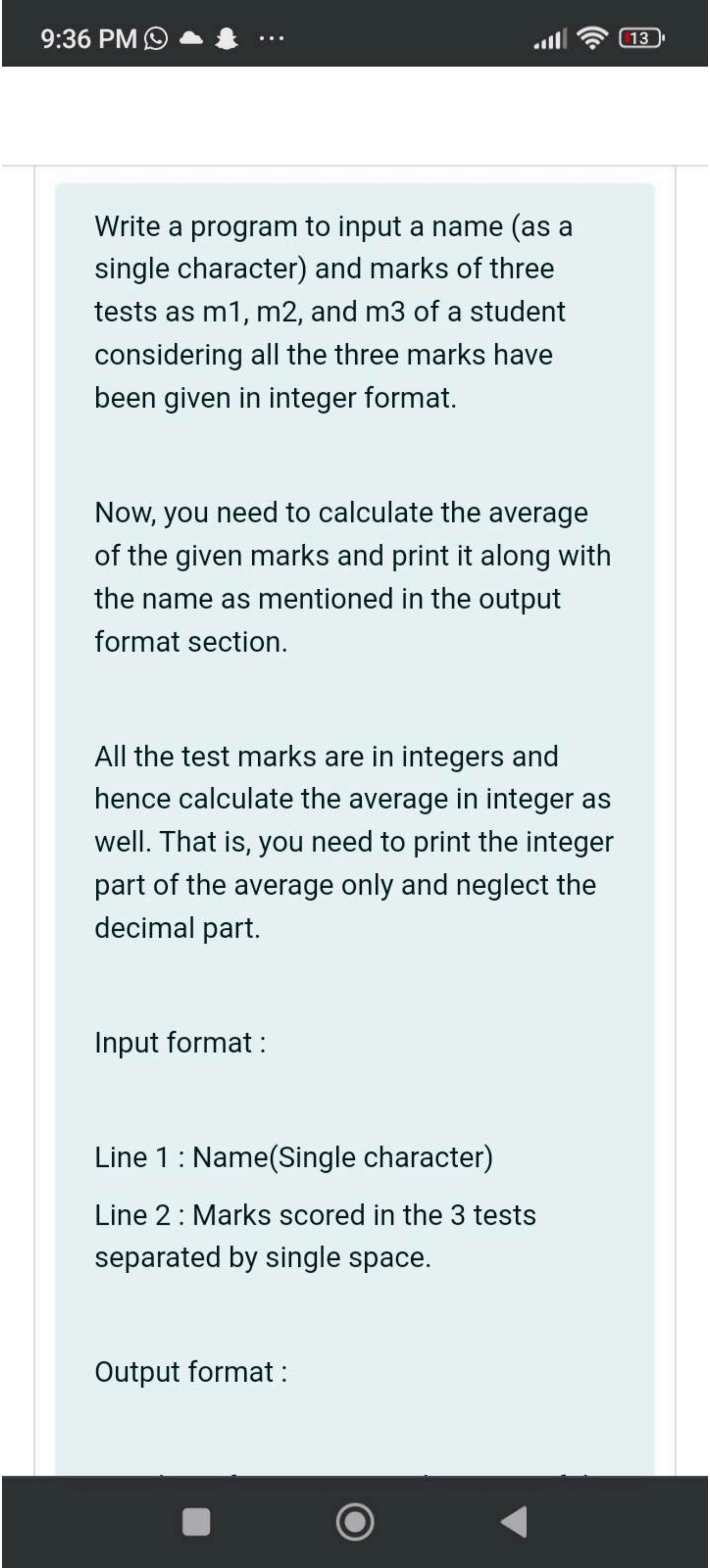
Marked out of 3.00

Flag question

Write a program to input a name (as a single character) and marks of three tests as m1, m2, and m3 of a student considering all the three marks have been given in integer format.

Now, you need to calculate the average of the given marks and print it along with the name as mentioned in the output format section.

All the test marks are in integers and hence calculate the average in integer as



Write a program to input a name (as a single character) and marks of three tests as m1, m2, and m3 of a student considering all the three marks have been given in integer format.

Now, you need to calculate the average of the given marks and print it along with the name as mentioned in the output format section.

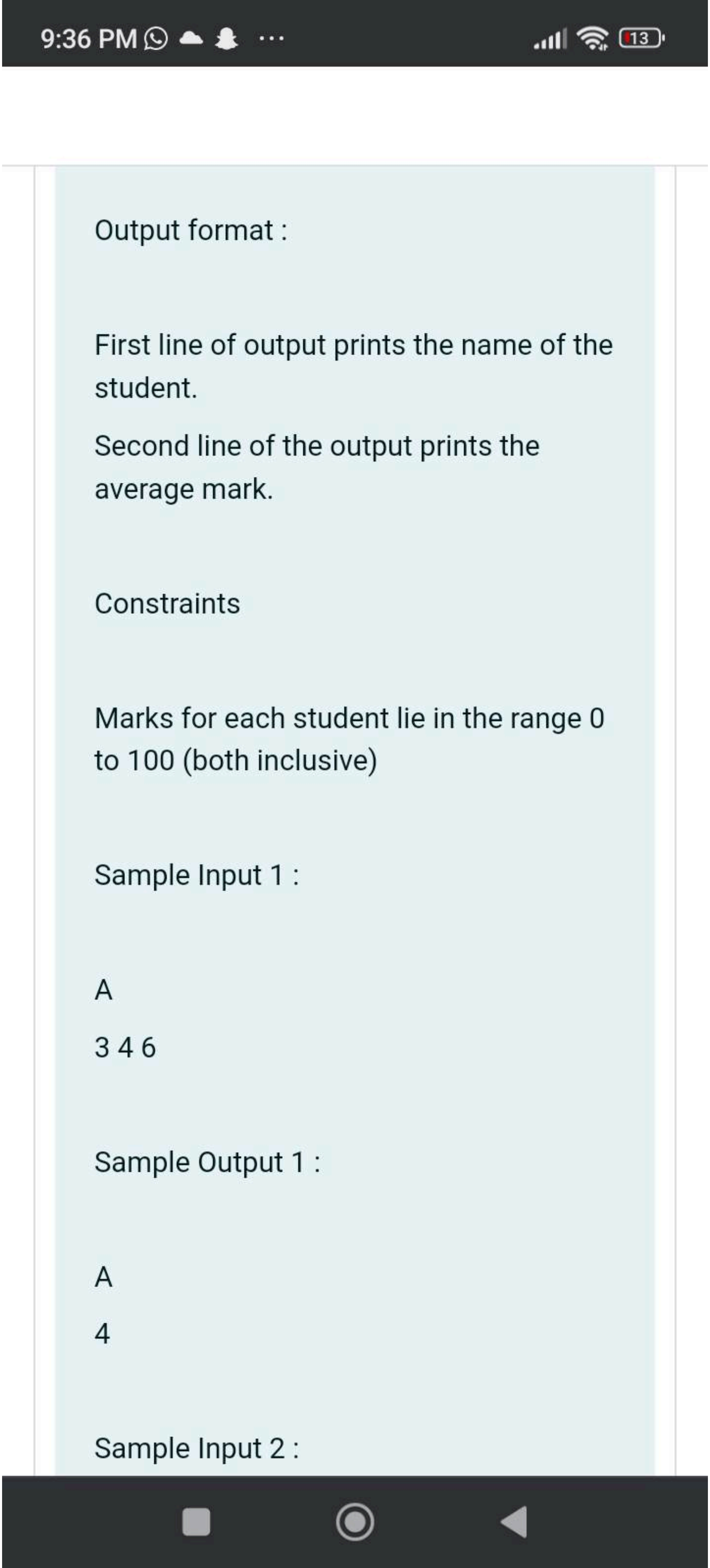
All the test marks are in integers and hence calculate the average in integer as well. That is, you need to print the integer part of the average only and neglect the decimal part.

Input format :

Line 1 : Name(Single character)

Line 2 : Marks scored in the 3 tests separated by single space.

Output format :



Output format :

First line of output prints the name of the student.

Second line of the output prints the average mark.

Constraints

Marks for each student lie in the range 0 to 100 (both inclusive)

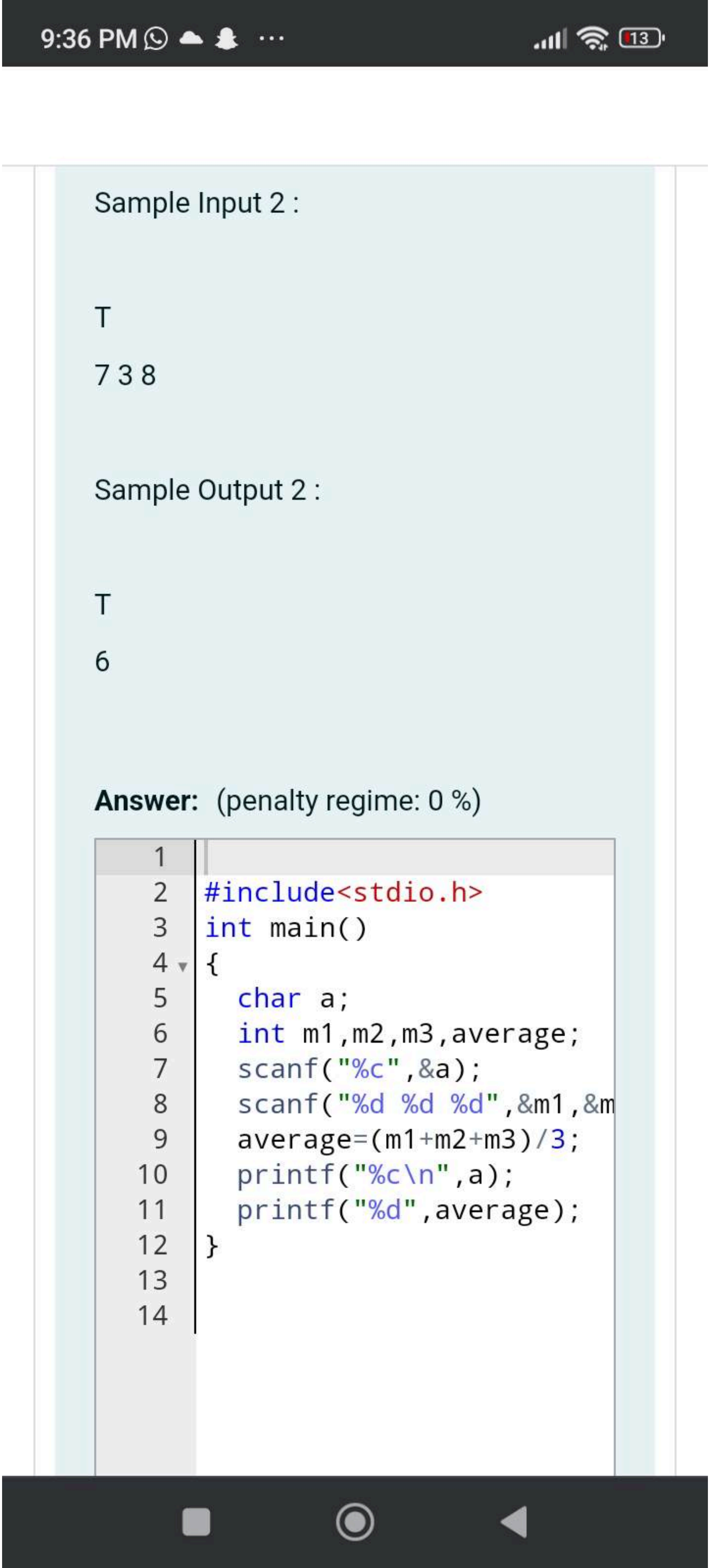
Sample Input 1 :

```
A
3 4 6
```

Sample Output 1 :

```
A
4
```

Sample Input 2 :



Sample Input 2 :

T

7 3 8

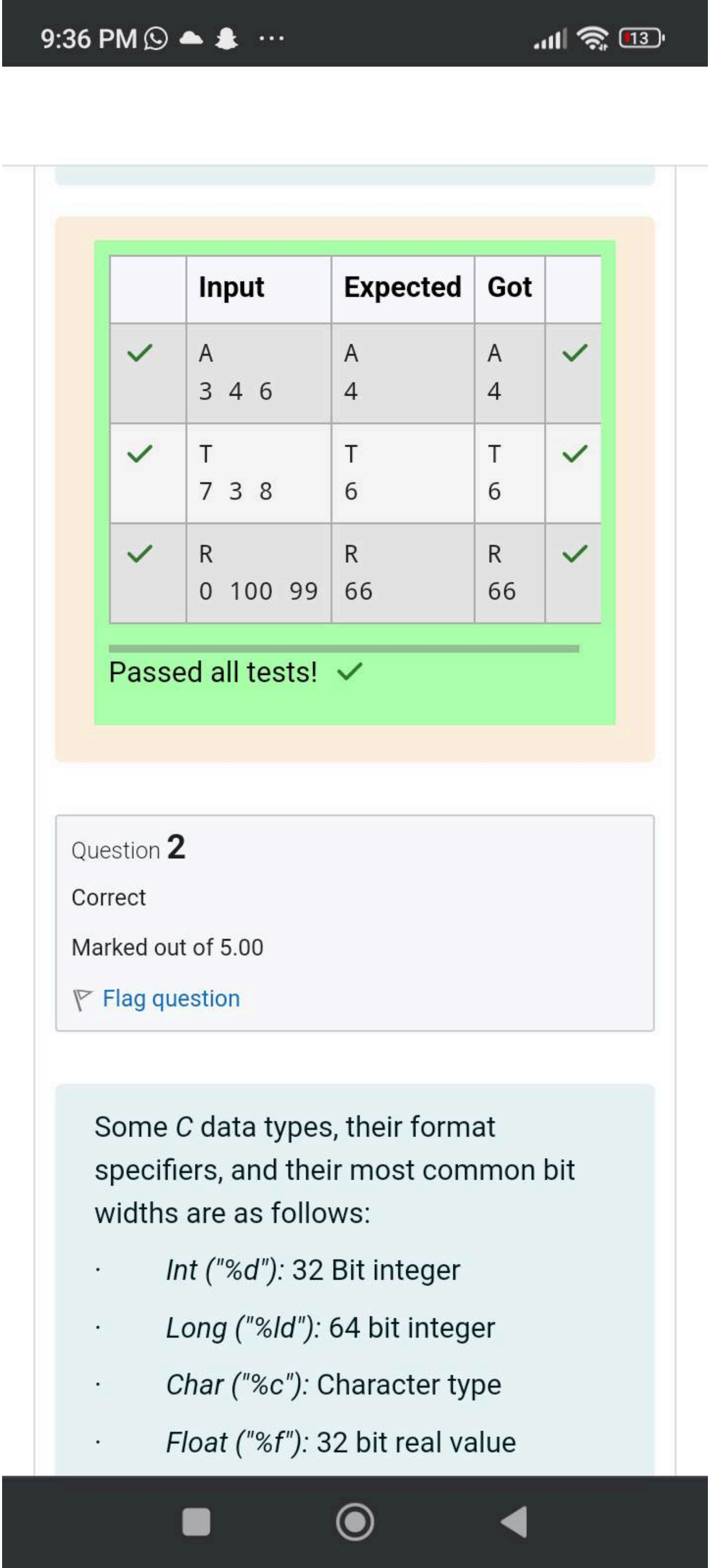
Sample Output 2 :

T

6

Answer: (penalty regime: 0 %)

```

#include<stdio.h>
int main()
{
  char a;
  int m1,m2,m3,average;
  scanf("%c",&a);
  scanf("%d %d %d",&m1,&m
  average=(m1+m2+m3)/3;
  printf("%c\n",a);
  printf("%d",average);
}


```



9:36 PM 13

	Input	Expected	Got	
✓	A 3 4 6	A 4	A 4	✓
✓	T 7 3 8	T 6	T 6	✓
✓	R 0 100 99	R 66	R 66	✓

Passed all tests! ✓

Question **2**

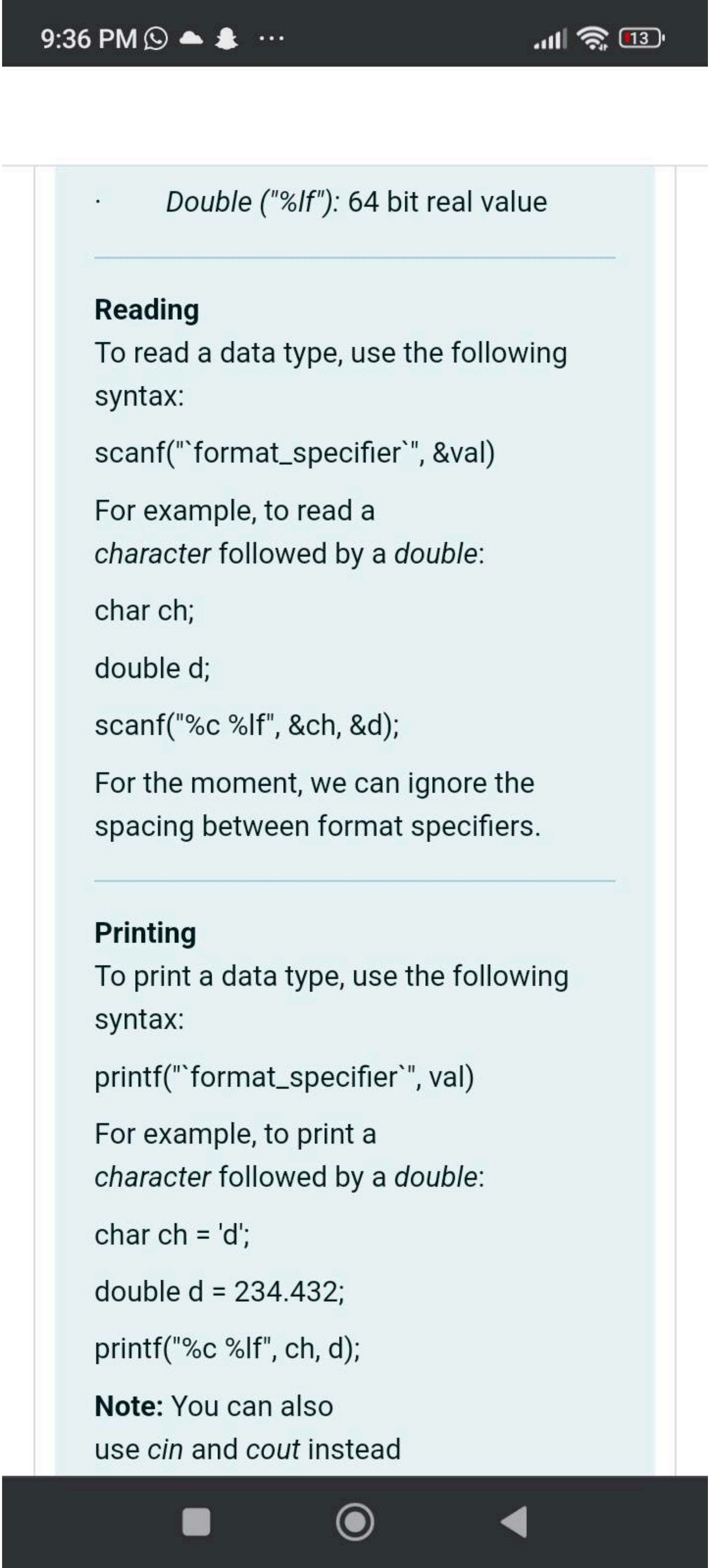
Correct

Marked out of 5.00

Flag question

Some *C* data types, their format specifiers, and their most common bit widths are as follows:

- *Int ("%d"):* 32 Bit integer
- *Long ("%ld"):* 64 bit integer
- *Char ("%c"):* Character type
- *Float ("%f"):* 32 bit real value



- *Double ("%lf"):* 64 bit real value

Reading

To read a data type, use the following syntax:

```
scanf("`format_specifier`", &val)
```

For example, to read a *character* followed by a *double*:

```
char ch;

double d;

scanf("%c %lf", &ch, &d);
```

For the moment, we can ignore the spacing between format specifiers.

Printing

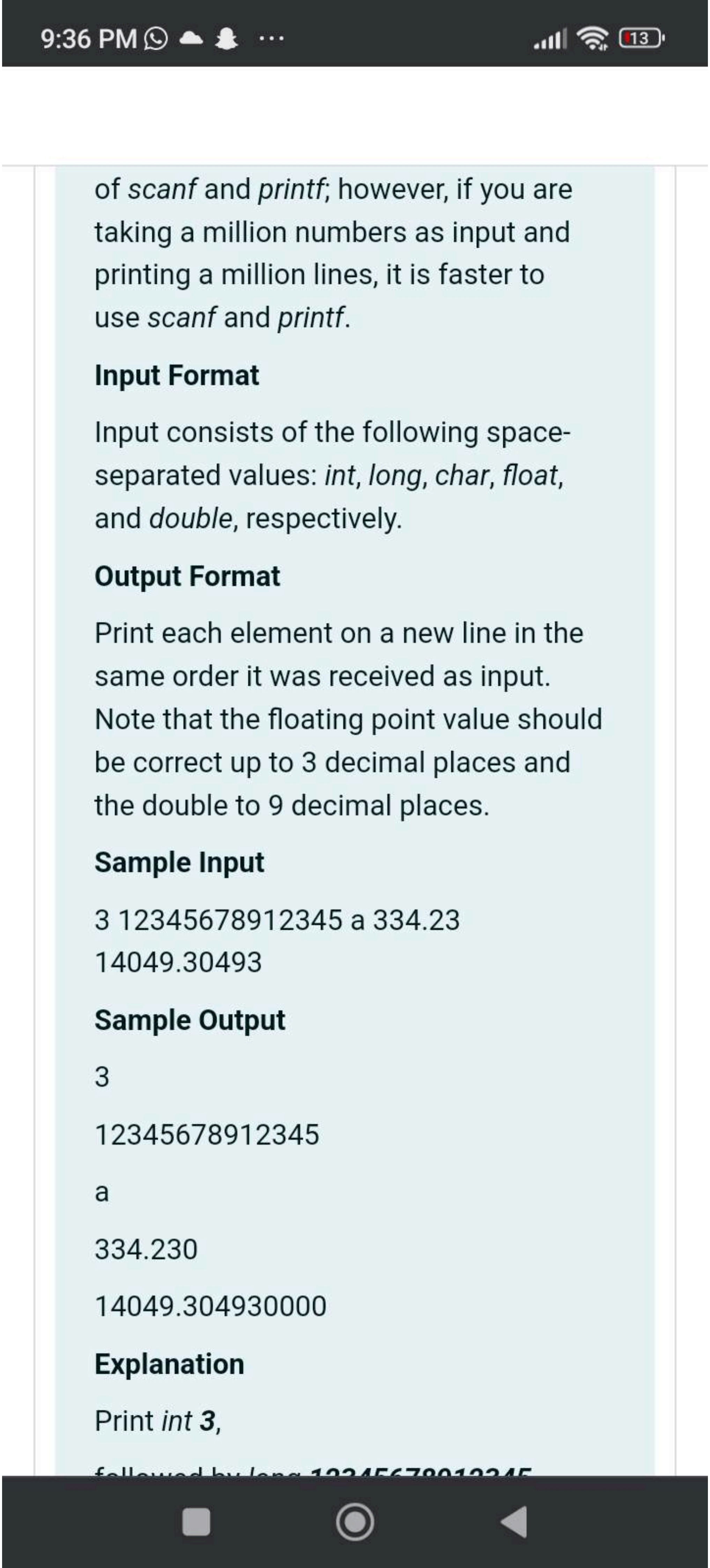
To print a data type, use the following syntax:

```
printf("`format_specifier`", val)
```

For example, to print a *character* followed by a *double*:

```
char ch = 'd';

double d = 234.432;

printf("%c %lf", ch, d);
```

Note: You can also use *cin* and *cout* instead



of *scanf* and *printf*; however, if you are taking a million numbers as input and printing a million lines, it is faster to use *scanf* and *printf*.

Input Format

Input consists of the following space-separated values: *int*, *long*, *char*, *float*, and *double*, respectively.

Output Format

Print each element on a new line in the same order it was received as input. Note that the floating point value should be correct up to 3 decimal places and the double to 9 decimal places.

Sample Input

```
3 12345678912345 a 334.23
14049.30493
```

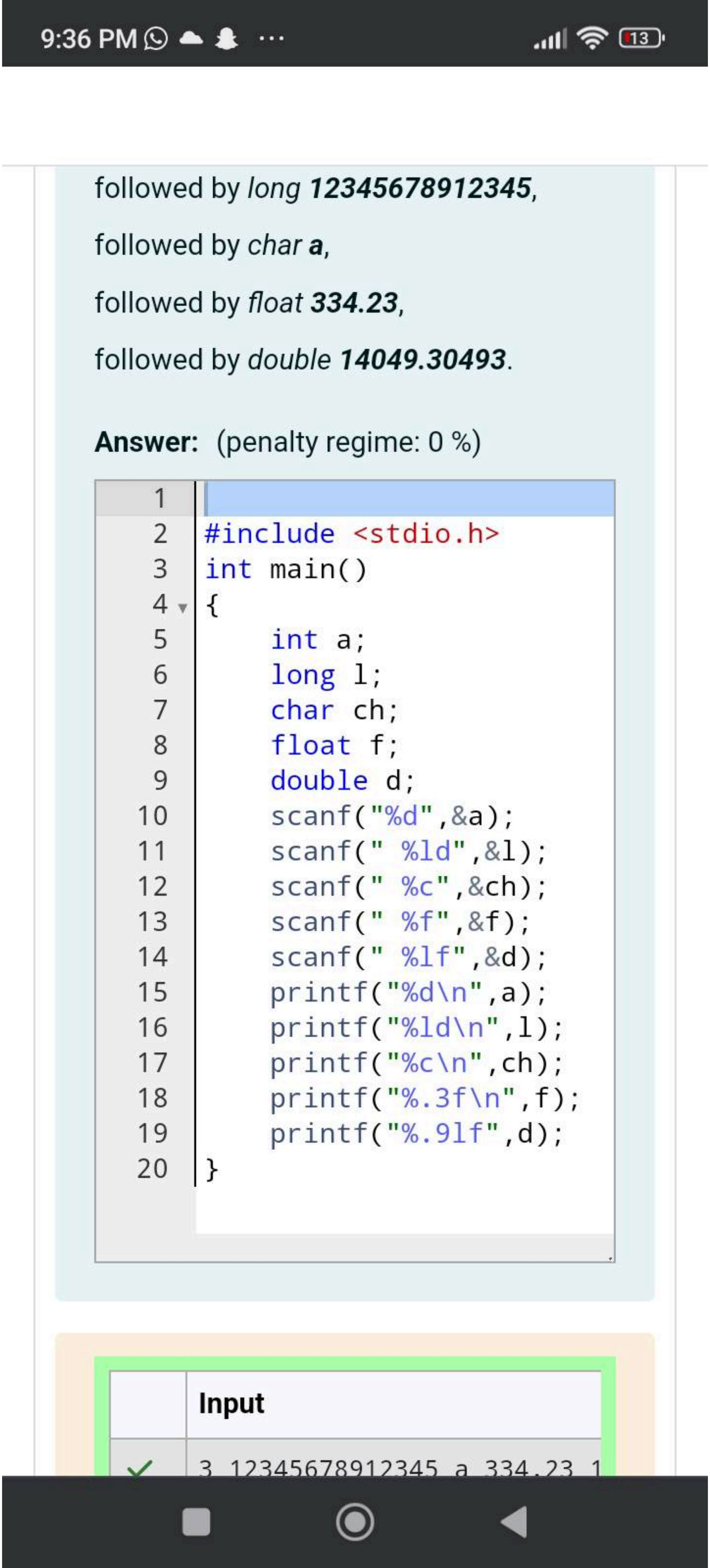
Sample Output

```
3

12345678912345

a

334.230

14049.304930000
```

Explanation

Print *int* ***3***,

followed by *long* ***12345678912345***



followed by *long* ***12345678912345***,

followed by *char* ***a***,

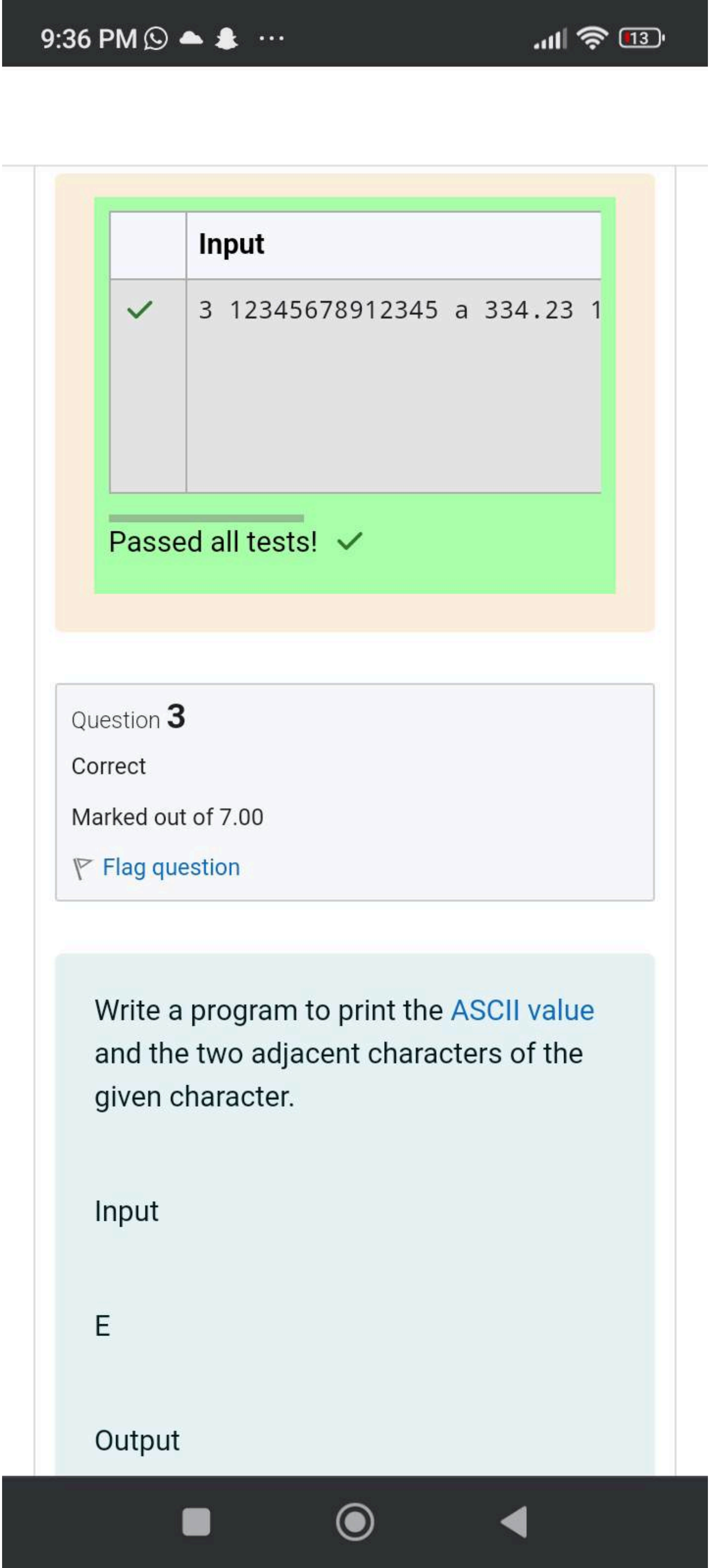
followed by *float* ***334.23***,

followed by *double* ***14049.30493***.

Answer: (penalty regime: 0 %)

```

#include <stdio.h>
int main()
{
    int a;
    long l;
    char ch;
    float f;
    double d;
    scanf("%d",&a);
    scanf(" %ld",&l);
    scanf(" %c",&ch);
    scanf(" %f",&f);
    scanf(" %lf",&d);
    printf("%d\n",a);
    printf("%ld\n",l);
    printf("%c\n",ch);
    printf("%.3f\n",f);
    printf("%.9lf",d);
}
```

	Input
✓	3 12345678912345 a 334.23 1



	Input
✓	`3 12345678912345 a 334.23 1`

Passed all tests! ✓

Question **3**

Correct

Marked out of 7.00

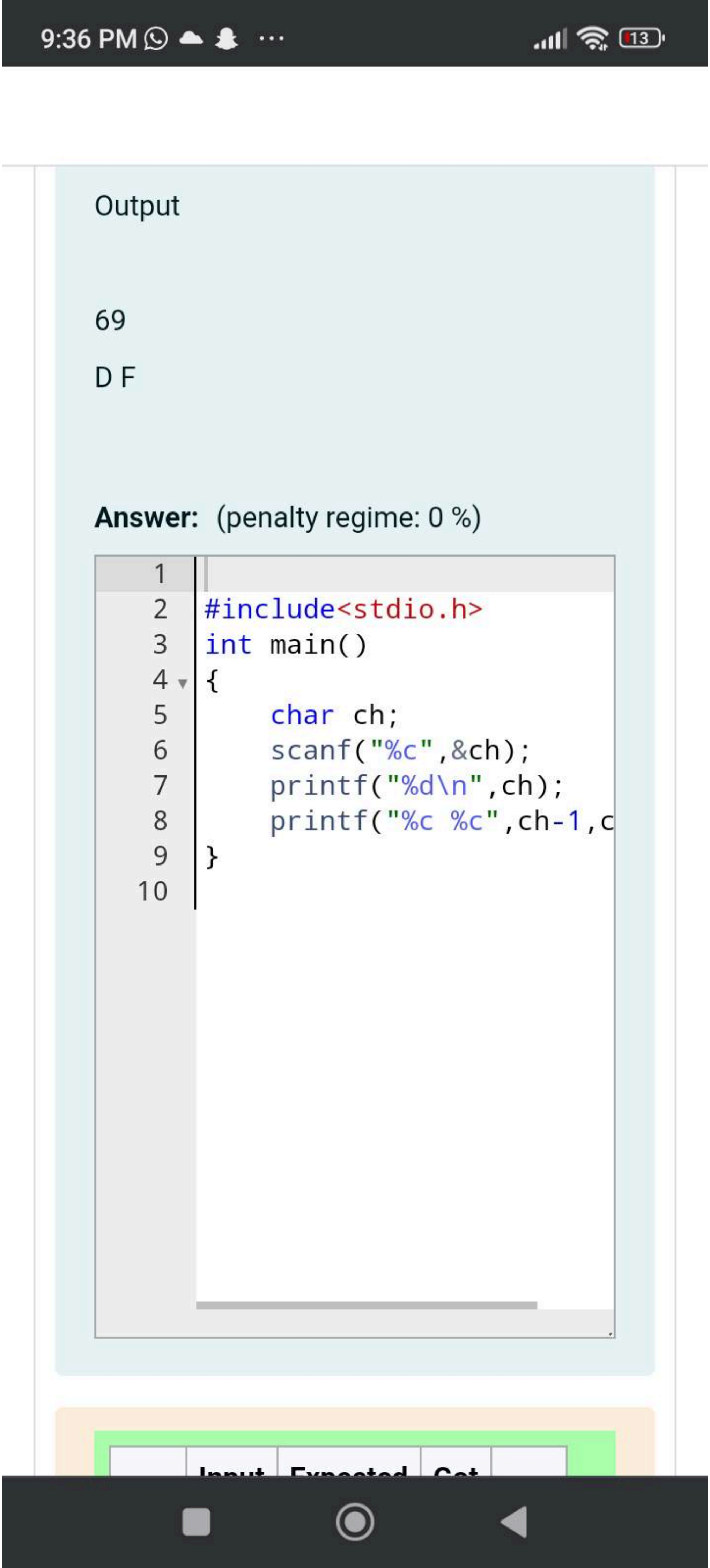
Flag question

Write a program to print the ASCII value and the two adjacent characters of the given character.

Input

E

Output

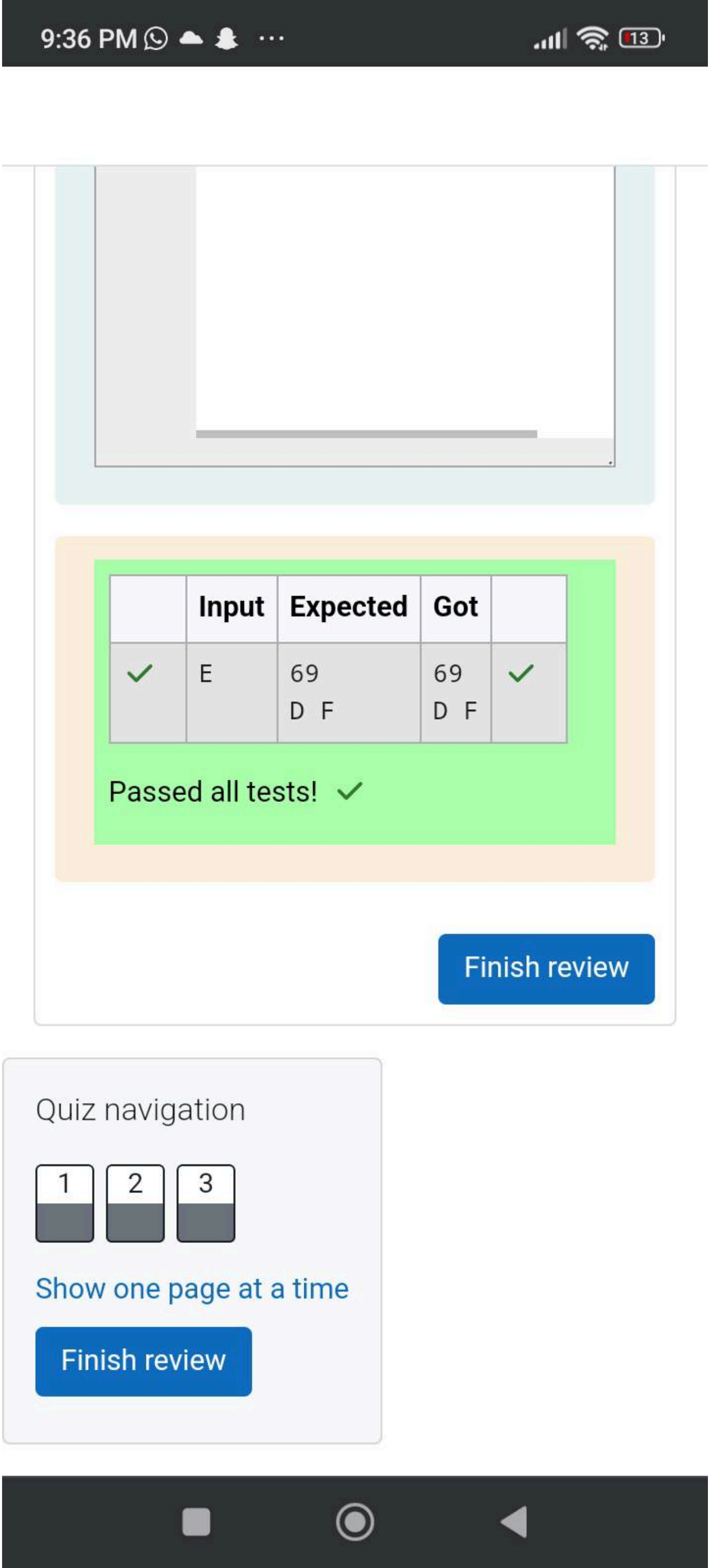


Output

```
69
D F
```

Answer: (penalty regime: 0 %)

```

#include<stdio.h>
int main()
{
    char ch;
    scanf("%c",&ch);
    printf("%d\n",ch);
    printf("%c %c",ch-1,c
}

```



	Input	Expected	Got	
✓	E	69 D F	69 D F	✓

Passed all tests! ✓