

Week 1-1

**Coding C – Language Features – Optional.**

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## Attempt 1

<b>Status</b>	Finished
<b>Started</b>	Monday, 23 December 2024, 5:33 PM
<b>Completed</b>	Thursday, 10 October 2024, 9:27 AM
<b>Duration</b>	74 days 8 hours

### Problem 1:

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.

### Code:

```
1 #include<stdio.h>
2 int main()
3 {
4     printf("Hello, World!");
5     return 0;
6 }
```

### OUTPUT:

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

Passed all tests! ✓

## **Problem 2:**

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`.

## **Input Format:**

Take a character, `ch` as input.

## **Output Format:**

Print the character, `ch`.

## **Code**

```
1 #include<stdio.h>
2 int main()
3 {
4     char ch;
5     scanf("%c",&ch);
6     printf("%c",ch);
7     return 0;
8 }
```

## **OUTPUT:**

	Input	Expected	Got	
✓	c	c	c	✓

Passed all tests! ✓

### **Problem 3:**

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.

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:**

- $1 \leq \text{integer variables} \leq 104$
- $1 \leq \text{float variables} \leq 104$

### **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

6.0 2.0

### Code

```
1 #include<stdio.h>
2 int main()
3 {
4     int int1,int2;
5     float float1,float2;
6     scanf("%d %d",&int1,&int2);
7     scanf("%f %f",&float1,&float2);
8     printf("%d %d\n",int1+int2,int1-int2);
9     printf("%.1f %.1f\n",float1+float2,float1-float2);
10    return 0;
11
12 }
```

### OUTPUT

	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! ✓