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Week-01-Overview of C, Constants, Variables and Data Types

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.

Answer: (penalty regime: 0 %)

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

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

Passed all tests! ✓

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 `ch` to stdout:

```
char ch;  
scanf("%c", &ch);  
printf("%c", ch);
```

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

Task

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

Answer: (penalty regime: 0 %)

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

	Input	Expected	Got	
✓	c	c	c	✓

Passed all tests! ✓

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

Answer: (penalty regime: 0 %)

```
1  #include <stdio.h>
2  int main ()
3  {
4      int a;
5      int b;
6      float c;
7      float d;
8      scanf("%d%d",&a,&b);
9      printf("%d %d",a+b,a-b);
10     scanf("%f%f",&c,&d);
11     printf("\n%.1f %.1f",c+d,c-d);
12     return 0;
13 }
```

	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! ✓