Challenge 2: Calculate the Sum and Absolute Difference

Test your knowledge by solving a slightly more difficult challenge in this lesson.

We'll cover the following

Problem statement#

Your task is to write a function `sum_difference`. In the function parameter, you will pass the two pointers of type `int`, and the function will return nothing in the output.

```
void sum_difference ( int *value1 , int *value2 ) ;
```

Your function should:

Task 1: Sum the values pointed by `value1` and `value2` and store the result in the location pointed by `value1`.

Task 2: Calculate the absolute difference of the value pointed out by `value1` and `value2` (this can be done by subtracting the value pointed out by `value1` from the value pointed by `value2`). Store the result in the location pointed by

`value2`.

Sample input#

```
int value1 = 2 , value2 = 6;
sum_difference (&value1, &value2)
```

Sample output#

```
value1 = 8
value2 = 4
```

Coding exercise#

Before diving directly into the solution, try to solve it yourself. Then check if your code passes all the test cases.

> 📝 Your function name should be `sum_difference`. Else, your code will not compile.

Good luck! 👍

```
1  void sum_difference (int * value1, int * value2) {
2    // Write your code here
3    // Initialize variables to 0
4    int diff = 0, sum = 0;
5    // Calculate sum
6    sum = * value1 + * value2;
7    // Calculate difference
8    diff = * value1 - * value2;
9    // Check if difference is negative
10   if (diff < 0) {
11     // Multiply it by -1 to make it positive
12     diff = diff * - 1;
13   }
```

```
14    // Store sum in memory location pointed out by value1
15    * value1 = sum;
16    // Store diff in memory location pointed out by value2
17    * value2 = diff;
18  }
```





Show Results Show Console

0.99s

3 of 3 Tests Passed

Result	Input	Expected Output	Actual Output	Reason
✓	value1 = 6 , value2 = 2	value1 = 8, value2 = 4	value1 = 8, value2 = 4	Succeeded
✓	value1 = -800 , value2 = 456	value1 = -344, value2 = 1256	value1 = -344, value2 = 1256	Succeeded
✓	value1 = 0 , value2 = 600	value1 = 600, value2 = 600	value1 = 600, value2 = 600	Succeeded

🎉If you have solved the problem, congratulations!

In case you are stuck, go over the solution review in the next lesson.

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Completed