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Pointer

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Problem

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A [pointer](#) in C is a way to share a memory address among different contexts (primarily functions). They are primarily used whenever a function needs to modify the content of a variable, of which it doesn't have ownership.

In order to access the memory address of a variable, *val*, we need to prepend it with *&* sign. E.g., *&val* returns the memory address of *val*.

This memory address is assigned to a pointer and can be shared among various functions. E.g. *int* p = &val* will assign the memory address of *val* to pointer *p*. To access the content of the memory to which the pointer points, prepend it with a ***. For example, **p* will return the value reflected by *val* and any modification to it will be reflected at the source (*val*).

```
void increment(int *v) {
    (*v)++;
}

int main() {
    int a;
    scanf("%d", &a);
    increment(&a);
    printf("%d", a);
    return 0;
}
```

You have to complete the function *void update(int *a,int *b)*, which reads two integers as argument, and sets *a* with the sum of them, and *b* with the absolute difference of them.

- $a' = a + b$
- $b' = |a - b|$

Input Format

Input will contain two integers, *a* and *b*, separated by a newline.

Output Format

You have to print the updated value of *a* and *b*, on two different lines.

P.S.: Input/output will be automatically handled. You only have to complete the *void update(int *a,int *b)* function.

Sample Input

```
4
5
```

Sample Output

```
9
1
```

Explanation

- $a' = 4 + 5 = 9$

- $b' = |4 - 5| = 1$

[f](#) [t](#) [in](#)

Submissions: 65724

Max Score: 10



Difficulty: Easy

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Current Buffer (saved locally, editable)  

C++  

```
1 #include <stdio.h>
2 #include <iostream>
3 #include <cstdlib>
4 #include <iomanip>
5
6 using namespace std;
7
8 void update(int *a,int *b) {
9     // Complete this function
10    int res = *a + *b;
11    cout << res << endl;
12
13    cout << abs(*a - *b) << endl;
14 }
15
16 int main() {
17     int a, b;
18     int *pa = &a, *pb = &b;
19
20     scanf("%d %d", &a, &b);
21     update(pa, pb);
22     //printf("%d\n", a, b);
23
24     return 0;
25 }
26
```

Line: 22 Col: 7

 [Upload Code as File](#)☐ Test against custom input[Run Code](#)[Submit Code](#)

Congrats, you solved this challenge!

✓ Test Case #0

✓ Test Case #1

✓ Test Case #2

✓ Test Case #3

✓ Test Case #4

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