

## Problem

A **pointer** in C++ is used to share a memory address among different contexts (primarily functions). They are used whenever a function needs to modify the content of a variable, but it does not have ownership.

In order to access the memory address of a variable, **val**, prepend it with **&** sign. For example, **&val** returns the memory address of **val**.

This memory address is assigned to a pointer and can be shared among functions. For example, **int\* p = &val** assigns the memory address of **val** to pointer **p**. To access the content of the memory pointed to, prepend the variable name with a **\***. For example, **\*p** will return the value stored in **val** and any modification to it will be performed on **val**.

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

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

## Leaderboard

## Discussions

## Editorial

## Function Description

Complete the update function in the editor below.

update has the following parameters:

- int **\*a**: an integer
- int **\*b**: an integer

## Returns

- The function is declared with a void return type, so there is no value to return. Modify the values in memory so that **a** contains their sum and **b** contains their absolute difference.
- $a' = a + b$
- $b' = |a - b|$

## Input Format

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

## Sample Input

```
4
5
```

## Sample Output

```
9
1
```

## Explanation

Change Theme

C++



```
1
2
3 void update(int *a,int *b) {
4     int tempA = *a, tempB = *b;
5     *a = tempA + tempB;
6     if(tempA > tempB){
7         *b = tempA - tempB;
8     }
9     else{
10        *b = tempB - tempA;
11    }
12
13 }
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%d", a, b);
23
24     return 0;
25 }
26
```

Line: 14 Col: 2

☐ Upload Code as File

☐ Test against custom input

Run Code

Submit Code

You have earned 10.00 points!

You are now 10 points away from the 3rd star for your c++ badge.

67%

60/70



## Congratulations

You solved this challenge. Would you like to challenge your friends?



Next Challenge

## Test case 0

## Test case 1

## Test case 2

## Test case 3

## Test case 4

## Compiler Message

Success

## Input (stdin)

Download

```
1 4
2 5
```

## Expected Output

Download

```
1 9
2 1
```

