

Objective

Problem In this challenge, you will learn to implement the basic functionalities of pointers in C. 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 that it does not own.

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

Leaderboard This memory address is assigned to a pointer and can be shared among various functions. For example, `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**).

Discussions

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

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

Task

Editorial Complete the function `void update(int *a, int *b)`. It receives two integer pointers, `int* a` and `int* b`. Set the value of **a** to their sum, and **b** to their absolute difference. There is no return value, and no return statement is needed.

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

Input Format

Change Theme Language: C



```
1  #include <stdio.h>
2
3  void update(int *a, int *b) {
4      // Complete this function
5      int temp;
6      temp = *a;
7      *a = *a + *b;
8      *b = temp - *b;
9      if (*b < 0)
10         *b = - *b;
11 }
12
13 int main() {
14     int a, b;
15     int *pa = &a, *pb = &b;
16
17     scanf("%d %d", &a, &b);
18     update(pa, pb);
19     printf("%d\n%d", a, b);
20
21     return 0;
22 }
```

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