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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**

- $a' = 4 + 5 = 9$
- $b' = |4 - 5| = 1$

C++



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

Line: 1 Col: 1

Upload Code as File ☐ Test against custom input

Run Code

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