

# Maximum Sum of the Array

You are given an array of  $N$  integers. You tried to sum all the elements of the array, but you see the *summation* does not reach the maximum.

So you decide to divide the array into two arrays. You can choose any index ( $1 \leq i \leq N$ ) from array  $Ar$  and remove the value from the  $Ar$  array and add it to another array  $A$ . Also, you can choose any index ( $1 \leq j \leq N$ ) and remove the value from  $Ar$  and add it to another array  $B$

Suppose an array  $ar = [1, 2, 3, 0, 5]$ , so you can choose index  $1, 3, 5$  and remove it from array  $ar$  and add it to array  $A$ . So  $ar = [., 2, ., 0, .]$  and  $A = [1, 3, 5]$ . You can choose index  $2, 4$  and remove it from array  $ar$  and add it to array  $B$ . So  $ar = [., ., ., ., .]$  and  $B = [2, 0]$ .

You can do any operation until array  $ar$  becomes empty.

Here is the main problem. You need to divide  $ar$  in such way that  $SUM(A) - SUM(B)$  gets *maximized*.

Here  $SUM(X)$  means summation of the array  $x$ . Example  $x = [1, 5, 8]$  so  $SUM(x) = 1 + 5 + 8 = 14$ .

Now Print the *maximum*  $SUM(A) - SUM(B)$  you can get.

Both  $A$  and  $B$  array needs to contain at least **1** element from array  $ar$ .

## Input Format

- First Line will contain  $N$  ( $2 \leq N \leq 10^6$ ), the number of elements present in the array.
- Second line will contain array  $ar$  of  $N$  elements. ( $-10^9 \leq ar_i \leq 10^9$ ).

## Output Format

Print the maximum value you can get of  $SUM(A) - SUM(B)$  after doing those operations.

## Example

**Input 01:**

5  
1 2 3 4 5

**Output 01:**

13

**Input 02:**

6  
-1 1 2 -2 3 -3

**Output 02:**

12