

HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

STEP 1 STEP 2 STEP 3 STEP 4 | THEORY PRACTICE | SUBMIT SUBMISSIONS HACKS STANDINGS CUSTOM INVOCATION ITMO Academy: pilot course » Segment Tree, part 2 » Step 2 » Practice

## A. Addition and Minimum

time limit per test: 1 second memory limit per test: 1024 megabytes input: standard input output: standard output

There is an array of n elements, initially filled with zeros. You need to write a data structure that processes two types of queries:

- add v to the segment from l to r-1,
- find the minimum on the segment from l to r-1.

## Input

The first line contains two numbers n and m ( $1 \le n, m \le 100000$ ), the size of the array and the number of operations. The following lines contain the description of the operations. The description of each operation is as follows:

- 1 l r v: add v to the segment from l to r-1 ( $0 \le l < r \le n$ ,  $0 \le v \le 10^9$ ).
- 2 l r: find the minimum on the segment from l to r-1 ( $0 \le l < r \le n$ ).

## **Output**

For each operation of the second type, print the corresponding value.

## Example

input	Сору
5 6	
1 0 3 3	
2 1 2	
1 1 4 4	
2 1 3	
2 1 4	
2 3 5	
output	Сору
3	
7	
4	
0	

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