

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

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## A. Assignment, Addition, and Sum

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 three types of queries:

- ullet assign value v to all elements on the segment from l to r-1,
- add v to all elements on the segment from l to r-1,
- find the sum 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: assign v to the segment from l to r-1 ( $0 \le l < r \le n$ ,  $0 \le v \le 10^5$ ).
- 2 l r v: add v to the segment from l to r-1 ( $0 \le l < r \le n$ ,  $0 \le v \le 10^5$ ).
- 3 l r: find the sum on the segment from l to r-1 ( $0 \le l < r \le n$ ).

## Output

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

## **Example**

input	Сору
5 7	
1033	
2 2 4 2	
3 1 3	
2 1 5 1	
1022	
3 0 3	
3 3 5	
output	Сору
8	
10	
4	

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