

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:

- 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 ($1 \leq n, m \leq 100000$), 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 $r - 1$ ($0 \leq l < r \leq n, 0 \leq v \leq 10^5$).
- 2 $l\ r\ v$: add v to the segment from l to $r - 1$ ($0 \leq l < r \leq n, 0 \leq v \leq 10^5$).
- 3 $l\ r$: find the sum on the segment from l to $r - 1$ ($0 \leq l < r \leq n$).

Output

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

Example

input	Copy
5 7 1 0 3 3 2 2 4 2 3 1 3 2 1 5 1 1 0 2 2 3 0 3 3 3 5	
output	Copy
8 10 4	

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

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