

B. Add Arithmetic Progression On Segment

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are given an array x , consisting of n elements equal to 0, and m queries of two types:

- add an arithmetic progression to a segment: the query is described with four integers l, r, a, d — for each $l \leq i \leq r$ you should perform $x_i += a + d \cdot (i - l)$;
- print current value of a given element.

Input

The first line contains two integers n, m ($1 \leq n, m \leq 2 \cdot 10^5$).

The next m lines describe queries. Each line starts with integer t ($1 \leq t \leq 2$) — type of the operation. For operations of the first type, four integers follow: l, r, a, d ($1 \leq l \leq r \leq n, 1 \leq a, d \leq 2 \cdot 10^5$). For operations of the second time one integer between 1 and n follows.

Output

For each query of the second type, print the answer.

Example

input	Copy
9 10 1 4 8 1 2 2 6 2 8 1 1 9 3 1 2 6 2 8 1 2 5 2 3 2 1 2 2 2 3	
output	Copy
5 9 13 19 3 6 10	

→ Submit?

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

Choose file: Choose File No file chosen

Submit