Array Manipulation

Russian

You are given a list(1-indexed) of size n, initialized with zeroes. You have to perform m operations on the list and output the maximum of final values of all the n elements in the list. For every operation, you are given three integers a, b and k and you have to add value k to all the elements ranging from index a to b (both inclusive).

Consider a list a of size 3, the initial list would be $a = [0, 0, 0]$ and after performing the update $2\ 3\ 30$, the new list would be $a = [0, 30, 30]$.

Input Format

The first line will contain two integers n and m separated by a single space.
Next m lines will contain three integers a, b and k separated by a single space.
Numbers in list are numbered from 1 to n.

Constraints

- $3 \leq n \leq 10^7$
- $1 \leq m \leq 2 * 10^5$
- $1 \leq a \leq b \leq n$
- $0 \leq k \leq 10^9$

Output Format

Print in a single line the maximum value in the updated list.

Sample Input

```
5 3
1 2 100
2 5 100
3 4 100
```

Sample Output

```
200
```

Explanation

After first update list will be `100 100 0 0 0`.
After second update list will be `100 200 100 100 100`.
After third update list will be `100 200 200 200 100`.
So the required answer will be 200.