

Algorithmic Crush



Russian

You are given a list 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).

Input Format

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

A single line containing *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.