

Filling Jars



Animesh has N empty candy jars, numbered from 1 to N , with infinite capacity. He performs M operations. Each operation is described by 3 integers, a , b , and k . Here, a and b are indices of the jars, and k is the number of candies to be added inside each jar whose index lies between a and b (both inclusive). Can you tell the average number of candies after M operations?

Input Format

The first line contains two integers, N and M , separated by a single space.
 M lines follow; each of them contains three integers, a , b , and k , separated by spaces.

Constraints

$$3 \leq N \leq 10^7$$

$$1 \leq M \leq 10^5$$

$$1 \leq a \leq b \leq N$$

$$0 \leq k \leq 10^6$$

Output Format

A single line containing the average number of candies across N jars, *rounded down* to the nearest integer.

Note: *Rounded down* means finding the greatest integer which is less than or equal to the given number. E.g. 13.65 and 13.23 are rounded down to 13 , while 12.98 is rounded down to 12 .

Sample Input

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

Sample Output

```
160
```

Explanation

Initially each of the jars contains 0 candies

```
0 0 0 0 0
```

First operation:

```
100 100 0 0 0
```

Second operation:

```
100 200 100 100 100
```

Third operation:

```
100 200 200 200 100
```

Total = 800, Average = $800/5 = 160$