

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 the M lines contain three integers a , b and k separated by single space.

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 given number. Eg, 13.65 and 13.23 is rounded down to 13 , while 12.98 is rounded down to 12 .

Constraints

$3 \leq N \leq 10^7$
 $1 \leq M \leq 10^5$
 $1 \leq a \leq b \leq N$
 $0 \leq k \leq 10^6$

Sample Input #00

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

Sample Output #00

```
160
```

Explanation

Initially each of the jar 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 = $800/5 = 160$