Filling Jars



Problem Statement

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.

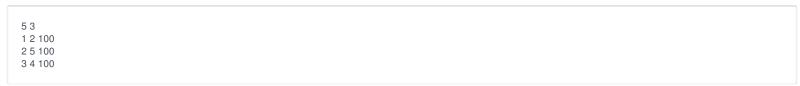
Note

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

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3 <= N <= 10^7
1 <= M <= 10^5
1 <= a <= b <= N
0 <= k <= 10^6
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Sample Input #00



Sample Output #00

160

Explanation

Initially each of the jar contains 0 candies

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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