Liars

You have **N** soldiers numbered from 1 to N. Each of your soldiers is either a liar or a truthful person. You have **M** sets of information about them. Each set of information tells you the number of liars among a certain range of your soldiers. Let **L** be the total number of your liar soldiers. Since you can't find the exact value of L, you want to find the minimum and maximum value of L.

Input Format

- The first line of the input contains two integers **N** and **M**.

- Each of next **M** lines contains three integers:
  A B C where the set of soldiers numbered as {A, A+1, A+2, ..., B}, exactly C of them are liars. ($1 <= A_i <= B_i <= n$) and ($0 <= C_i <= B_i - A_i$).

Note: **N** and **M** are not more than 101, and it is guaranteed the given informations is satisfiable.

Output Format

Print two integers Lmin and Lmax to the output.

Sample Input #1

3 2

1 2 1

2 3 1

Sample Output #1

1 2

Sample Input #2

20 11

3 8 4

1 9 6

1 13 9

5 11 5

4 19 12

8 13 5

4 8 4

7 9 2

10 13 3

7 16 7

14 19 4

Sample Output #2

13 14

Explanation

In the first input, the initial line is "3 2", i.e. that there are 3 soldiers and we have 2 sets of information. The next line says there is one liar in the set of soldiers {1, 2}. The final line says there is one liar in the set {2,3}. There are two possibilities for this scenario: Soldiers number 1 and 3 are liars or soldier number 2 is liar.

So the minimum number of liars is 1 and maximum number of liars is 2. Hence the answer, 1 2.