You are about to play a shooting game on a 2D board.
There will be N shooting points and you will get bi bounty if you shoot the ith shooting point.
Shooting at a point will make it disappear.
But if you shoot a point at cell (r,c), all other cells where ri<r or ci<c will also disappear and you can not shoot at those, because you can't see them.
You can shoot as many times as you want, you can also choose not to shoot at all.
Your total bounty will be the sum of bounties you get from shooting the points.
Find the maximum total bounty you can get.

Inputs
First line of input will contain an integer T denoting no of test cases.
For each test case, there will be a line containing 3 integers, R,C and N denoting size of the grid and no of shooting points followed by N lines containing 3 integers ri, ci, bi denoting position of the point in the grid and the bounty you will get if you shoot at the point (only if it is not disappeared by any previous shooting)

Output
For each test case output a single line containing an integer denoting the maximum total bounty you can get by shooting.

Constraints
1<=1e5<=T [Test Cases]
1<=R,C<=1e5 [Size of the grid]
1<=N<=2e5 [no of shooting points]
1<=ri<=R, 1<=ci<=C
1<=Bi<=1e9

Sum of N over all test cases will not exceed 2e5.

Sample Input
2
5 5 4
1 1 50
2 1 20
3 2 10
1 2 60
5 5 4
1 1 40
2 2 20
3 3 10
4 4 7

Sample Output
80
77

Explanation:
For test case 2, we can shoot all the points in order from top-left to bottom-right and the ans is 77.
For test case 1, we can shoot the first point,second point and third point (in this order) and get a total bounty of 80. The fourth point will disappear.

Solution Hint:
DP, Segment tree