
Problem Tutorial: “The queue”

Subtask 1. $N \leq 20$, $w \leq 1000$ — 10 points.

To solve this subtask you just need code exactly what the problem is asking for.

Subtask 2. $N \leq 10000$ — 40 points

You need to optimize the solution of the first subtask to $O(N^2)$ to solve this subtask.

Subtask 3. $N \leq 500000$ — 50 points

You need to optimize that solution even more using some data structure. In fact, this problem is very similar to the well-known problem with 2 types of query (if you imagine that you have a very big array) :

1. update the value of x_{th} element to y
2. output the sum of the prefix of the array

You can literally use almost any data structure to solve it. For instance, the author used Fenwick Tree.