Question 1:

You are given a weighted tree with N nodes, and two sets of nodes A and B. No node belongs to both A and B, and nodes may be in neither A nor B. You want to remove edges such that no node in A is reacheable (directly or undirectly) from a node in B. What is the minimum total weight needed to be removed?

$N \leq 200000$.

Question 2:

You are given an array of N integers. You want to make cuts in the array, partitioning the array into subarrays, such that the subarrays can be rearranged into a non-decreasing sequence. For example, $[3, 4, 5, 1, 2, 3]$ can be partitioned into $[4, 5, 6], [1, 2, 3]$, which can then be rearranged into $[1, 2, 3], [4, 5, 6]$. What is the minimum number of cuts needed?

$N \leq 10^6$.