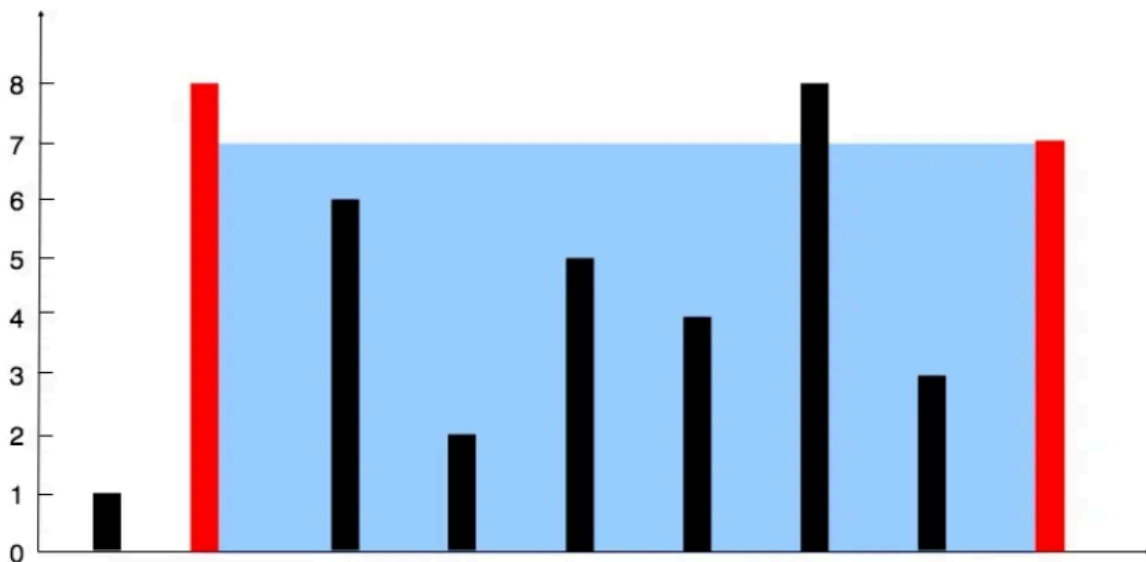


You're a contestant in a game show set in a magical forest. In this forest, there are mystical water fountains scattered around, but they're guarded by mischievous creatures. To collect water for your village, you need to place two magic orbs between two trees. Each orb's height is limited by the shorter tree, and the width is the distance between the trees. Your goal is to maximize water collection to save your village from drought. Can you figure out the best placement for the orbs to gather the most water?



Input

The first line contains one integer N ($1 \leq N \leq 10^5$), denoting the number of trees in the forest.

The second line contains the height of the trees separated by a space.

Output:

The output contains an integer number denoting the maximum area you can cover between two trees.

Sample Input/Output:

Sample Input 1	Sample Output 1
9 1 8 6 2 5 4 8 3 7	49
Sample Input 2	Sample Output 2
6 5 2 6 8 3 10	25