A. Boredom

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Alex doesn't like boredom. That's why whenever he gets bored, he comes up with games. One long winter evening he came up with a game and decided to play it.

Given a sequence a consisting of n integers. The player can make several steps. In a single step he can choose an element of the sequence (let's denote it a_k) and delete it, at that all elements equal to $a_k + 1$ and $a_k - 1$ also must be deleted from the sequence. That step brings a_k points to the player.

Alex is a perfectionist, so he decided to get as many points as possible. Help him.

Input

The first line contains integer n ($1 \le n \le 10^5$) that shows how many numbers are in Alex's sequence.

The second line contains n integers $a_1, a_2, ..., a_n$ ($1 \le a_i \le 10^5$).

Output

Print a single integer — the maximum number of points that Alex can earn.

Examples

input
2 1 2

output
2

input
3 1 2 3

output
4

input
9 1 2 1 3 2 2 2 2 3

output
10

Note

Consider the third test example. At first step we need to choose any element equal to 2. After that step our sequence looks like this $[2, 2, 2, 2]$. Then we do 4 steps, on each step we choose any element equals to 2. In total we earn 10 points.