

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 ($1 \leq n \leq 10^5$) that shows how many numbers are in Alex's sequence.

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

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.

Codeforces Round #260 (Div. 1)

Finished

→ Virtual participation

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dp

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