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 *ak*) and delete it, at that all elements equal to *ak* + 1 and *ak* - 1 also must be deleted from the sequence. That step brings *ak* 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 ≤ *n* ≤ 105) that shows how many numbers are in Alex's sequence.

The second line contains *n* integers *a*1, *a*2, ..., *an* (1 ≤ *ai* ≤ 105).

**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.