



Make Distinct

Time limit: 1000 ms
Memory limit: 256 MB

You are given an array of N integers, A . An operation involves taking a number from the array and either adding or subtracting 1 from it. What is the minimum number of operations to make A have only distinct elements.

Standard input

The first line contains an integer N .

The second line contains N elements, representing A .

Standard output

Print the answer on the first line.

Constraints and notes

- $1 \leq N \leq 2 \cdot 10^5$
- $1 \leq A_i \leq N$ for all valid i

Input	Output	Explanation
<div>7</div> <div>2 3 4 2 2 1 3</div>	<div>7</div>	Transform into 2 4 5 -1 1 0 3 with a cost equal to $(0 + 1 + 1 + 3 + 1 + 1)$.
<div>4</div> <div>3 3 3 3</div>	<div>4</div>	Transform into 5 4 3 2.
<div>5</div> <div>5 4 4 5 4</div>	<div>4</div>	Transform into 6 3 4 5 2.