

A. Holiday Of Equality

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

In Berland it is the holiday of equality. In honor of the holiday the king decided to equalize the welfare of all citizens in Berland by the expense of the state treasury.

Totally in Berland there are n citizens, the welfare of each of them is estimated as the integer in a_i burles (burle is the currency in Berland).

You are the royal treasurer, which needs to count the minimum charges of the kingdom on the king's present. The king can only give money, he hasn't a power to take away them.

Input

The first line contains the integer n ($1 \leq n \leq 100$) — the number of citizens in the kingdom.

The second line contains n integers a_1, a_2, \dots, a_n , where a_i ($0 \leq a_i \leq 10^6$) — the welfare of the i -th citizen.

Output

In the only line print the integer S — the minimum number of burles which are had to spend.

Examples

input
5 0 1 2 3 4
output
10
input
5 1 1 0 1 1
output
1
input
3 1 3 1
output
4
input
1 12
output
0

Codeforces Round #392 (Div. 2)

Finished

Practice



Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

Submit?

Language: GNU G++14 6.2.0

Choose file: Browse... No file selected.

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

Submit

Last submissions

Submission	Time	Verdict
23950113	Jan/19/2017 18:11	Accepted

Problem tags

implementationmath

No tag edit access

Contest materials

- Announcement
- Tutorial

Note

In the first example if we add to the first citizen 4 burles, to the second 3, to the third 2 and to the fourth 1, then the welfare of all citizens will equal 4.

In the second example it is enough to give one burle to the third citizen.

In the third example it is necessary to give two burles to the first and the third citizens to make the welfare of citizens equal 3.

In the fourth example it is possible to give nothing to everyone because all citizens have 12 burles.

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