CODEFORCES
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HOME   TOP   CATALOG   CONTESTS   GYM   PROBLEMSET   GROUPS   RATING   EDU   API   CALENDAR   HELP

PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

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 $a_1, a_2, ..., a_n$, 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	Copy
5
0 1 2 3 4	

output	Copy
10	

input	Copy
5
1 1 0 1 1	

output	Copy
1	

input	Copy
3
1 3 1	

output	Copy
4	

input	Copy
1
12	

output	Copy
0	

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.

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 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]

→ Clone Contest to Mashup ⌄

You can clone this contest to a mashup.

[Clone Contest]

→ Submit?

Language: GNU GCC C11 5.1.0 ⌄

Choose file: [Choose File] No file chosen

[Submit]

→ Problem tags

implementation   math   *800

No tag edit access

→ Contest materials

- Announcement ✕
- Tutorial ✕

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.