

Problem E. Permutation

Time limit 1000 ms

Mem limit 262144 kB

Permutation p is an ordered set of integers p_1, p_2, \dots, p_n , consisting of n distinct positive integers, each of them doesn't exceed n . We'll denote the i -th element of permutation p as p_i . We'll call number n the size or the length of permutation p_1, p_2, \dots, p_n .

You have a sequence of integers a_1, a_2, \dots, a_n . In one move, you are allowed to decrease or increase any number by one. Count the minimum number of moves, needed to build a permutation from this sequence.

Input

The first line contains integer n ($1 \leq n \leq 3 \cdot 10^5$) — the size of the sought permutation. The second line contains n integers a_1, a_2, \dots, a_n ($-10^9 \leq a_i \leq 10^9$).

Output

Print a single number — the minimum number of moves.

Please, do not use the `%lld` specifier to read or write 64-bit integers in C++. It is preferred to use the `cin`, `cout` streams or the `%I64d` specifier.

Sample 1

Input	Output
2 3 0	2

Sample 2

Input	Output
3 -1 -1 2	6

Note

In the first sample you should decrease the first number by one and then increase the second number by one. The resulting permutation is (2, 1).

In the second sample you need 6 moves to build permutation (1, 3, 2).