C. Ilya and Sticks

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

In the evening, after the contest Ilya was bored, and he really felt like maximizing. He remembered that he had a set of n sticks and an instrument. Each stick is characterized by its length l_i.

Ilya decided to make a rectangle from the sticks. And due to his whim, he decided to make rectangles in such a way that maximizes their total area. Each stick is used in making at most one rectangle, it is possible that some of sticks remain unused. Bending sticks is not allowed.

Sticks with lengths a_1, a_2, a_3 and a_4 can make a rectangle if the following properties are observed:

- $a_1 \leq a_2 \leq a_3 \leq a_4$
- $a_1 = a_2$
- $a_3 = a_4$

A rectangle can be made of sticks with lengths of, for example, $3\ 3\ 3\ 3$ or $2\ 2\ 4\ 4$. A rectangle cannot be made of, for example, sticks $5\ 5\ 5\ 7$.

Ilya also has an instrument which can reduce the length of the sticks. The sticks are made of a special material, so the length of each stick can be reduced by at most one. For example, a stick with length 5 can either stay at this length or be transformed into a stick of length 4.

You have to answer the question — what maximum total area of the rectangles can Ilya get with a file if makes rectangles from the available sticks?

Input

The first line of the input contains a positive integer n ($1 \leq n \leq 10^5$) — the number of the available sticks.

The second line of the input contains n positive integers l_i ($2 \leq l_i \leq 10^6$) — the lengths of the sticks.

Output

The first line of the output must contain a single non-negative integer — the maximum total area of the rectangles that Ilya can make from the available sticks.

Examples

input
4 2 4 4 2
output
8

input
4 2 2 3 5
output
0

input
4 100003 100004 100005 100006

output
10000800015