I3 – Mismatched Socks

Fred likes to wear mismatched socks. This sometimes means he has to plan ahead. Suppose his sock drawer has 1 red, 1 blue, and 2 green socks. If he wears the red with the blue, he is stuck with matching green socks the next day. Given the contents of his sock drawer, how many pairs of mismatched socks can he put together?

Input

The first line of input contains a single integer n $(1 \leqslant n \leqslant 1000)$, the number of different colors of socks in Fred's drawer. The ith of the next n lines contains a single integer k_i $(1 \leqslant k_i \leqslant 10^9)$, the number of socks of the ith color.

Output

Print, on a single line, the maximum number of mismatched pairs of socks that Fred can make with the contents of his sock drawer.

Input and output samples

Input:
3
1
2
1

Output:
2

Input:
5
1
2
1
10
3

Output:
7