Mismatched Socks

Fred likes to wear mismatched socks. This sometimes means he has to plan ahead. Suppose his sock drawer has one **red**, one **blue**, and two **green** socks. If he wears the **red** with the **blue**, he's stuck with matching **green** socks. He put together two mismatched pairs if he pairs **red** with **green** and then **blue** with **green**. Given the contents of his sock drawer, how many pairs of mismatched socks can he put together?

Input

Each input will consist of a single test case. Note that your program may be run multiple times on different inputs. The first line of input contains an integer n ($1 \le n \le 1{,}000$) which is the number of colors of socks in Fred's drawer. Each of the next n lines has an integer k ($1 \le k \le 10^9$) which is the number of socks of that color.

Output

Output a single integer indicating the number of pairs of mismatched socks that Fred can make with the contents of his sock drawer.

Sample Input

Sample Input	Sample Output
3 1 2 1	2
5 1 2 1 10 3	7