[M] Mission: The Odd Code Protocol

Time limit: 1 second
Memory limit: 65535 kBytes

Description

You are Agent ECN, elite field operative of the Global Cipher Intelligence Agency (GCIA). During a covert operation, you intercepted a mysterious data transmission — a sequence of `N` positive integers. Agency analysts suspect the message conceals encrypted key pairs: two numbers form a valid key pair if their sum is odd. Your mission: determine how many such pairs exist in the sequence. Act fast, Agent — the enemy is already triangulating your location.

Input

The first line contains an integer ($1 < N < 1,000,000$)— the number of elements in the sequence. The second line contains the sequence of positive integers (each integer not larger then 1,000,000), separated by spaces.

Output

Print a single integer — the number of pairs you are looking for.

Example

Input

```
6
1 2 4 7 9 2
```

Output

```
9
```

Explanation

The pairs with an odd sum are: (1,2), (1,4), (1,2), (2,7), (2,9), (4,7), (4,9), (7,2), (9,2).