

F – Fibonacci Fusion

Memory limit: 1024 MB
Time limit: 4 s

AMPPZ 2023
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The Fibonacci numbers are 0, 1, 1, 2, 3, 5, 8, 13, 21, ... – each number (except the first two) is the sum of the two previous numbers.

You are given N numbers a_i . Count the pairs $i < j$ such that $a_i + a_j$ is a Fibonacci number.

Input

The first line of the input contains an integer N ($1 \leq N \leq 200\,000$).

Each of the next N lines contains an integer a_i ($1 \leq a_i < 10^{2\,000\,000}$). The total number of digits in these numbers does not exceed 5 000 000.

Output

Output a single integer – the number of pairs that sum to a Fibonacci number.

Example

For the input data:

```
6
50
8
8
5
72
354224848179261915070
```

the correct result is:

```
4
```

Explanation of the example:

There are 4 such pairs:

- $a_2 + a_4 = 8 + 5 = 13$
- $a_3 + a_4 = 8 + 5 = 13$
- $a_1 + a_4 = 50 + 5 = 55$
- $a_4 + a_6 = 5 + 354224848179261915070 = 354224848179261915075$