Problem C
Double Chunks

You have a chocolate bar consisting of N chunks (numbered from 1 to N). Chunk i contains A_i peanut bits. You can divide the chocolate bar into several pieces, with each piece consisting of one or more consecutive chunks. Each chunk can only be part of one piece. The total number of peanut bits in a piece is simply the sum of the peanut bits from each of its chunks.

A piece is considered a *double chunk* if and only if it consists of exactly two chunks. You are required to divide the chocolate bar into as many double chunks as possible, all having the same total number of peanut bits. Determine the maximum number of double chunks you can get while satisfying this requirement.

Input

The first line consists of an integer N ($2 \leq N \leq 100\,000$).

The second line consists of N integers A_i ($1 \leq A_i \leq 10^9$).

Output

Output a single integer representing the maximum number of double chunks you can get while satisfying the requirement.

Sample Input #1

```
10
2 4 1 4 5 2 3 1 1 4
```

Sample Output #1

```
3
```

Explanation for the sample input/output #1

You can make 3 double chunks, each containing 5 peanut bits. The first piece consists of chunks 2 and 3, which have 4 bits and 1 bit, respectively. The second piece consists of chunks 6 and 7, which have 2 bits and 3 bits, respectively. The third piece consists of chunks 9 and 10, which have 1 bit and 4 bits, respectively.

Sample Input #2

```
7
1 2 1 1 1 2 1
```

Sample Output #2

```
2
```

Sample Input #3

```
5
1 2 3 4 5
```

Sample Output #3

```
1
```