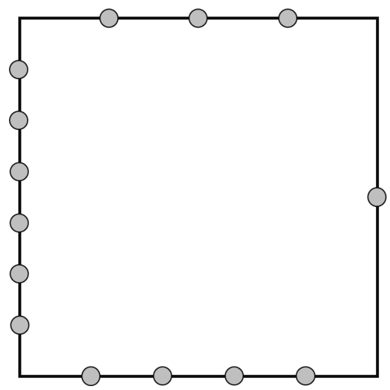
Problem M
Triangle Construction

You are given a regular N-sided polygon. Label one arbitrary side as side 1, then label the next sides in clockwise order as side $2, 3, \ldots, N$. There are A_i special points on side i. These points are positioned such that side i is divided into $A_i + 1$ segments with equal length.

For instance, suppose that you have a regular 4-sided polygon, i.e., a square. The following illustration shows how the special points are located within each side when $A = [3, 1, 4, 6]$. The uppermost side is labelled as side 1.



You want to create as many **non-degenerate triangles** as possible while satisfying the following requirements. Each triangle consists of 3 distinct special points (not necessarily from different sides) as its corners. Each special point can only become the corner of at most 1 triangle. All triangles must not intersect with each other.

Determine the maximum number of non-degenerate triangles that you can create.

A triangle is **non-degenerate** if it has a positive area.

Input

The first line consists of an integer N ($3 \le N \le 200\,000$).

The following line consists of N integers A_i ($1 \le A_i \le 2 \cdot 10^9$).

Output

Output a single integer representing the maximum number of non-degenerate triangles that you can create.

Sample Input #1

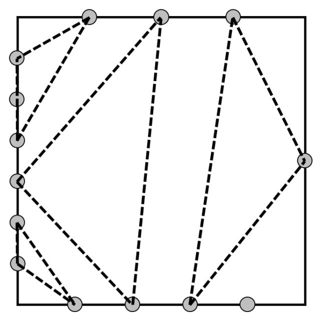
```
4
3 1 4 6
```

Sample Output #1

```
4
```

Explanation for the sample input/output #1

One possible construction which achieves maximum number of non-degenerate triangles can be seen in the following illustration.



Sample Input #2

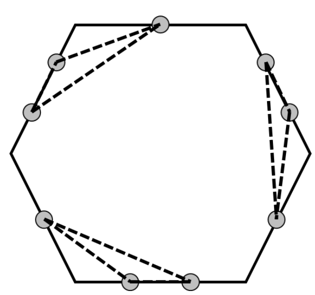
```
6
1 2 1 2 1 2
```

Sample Output #2

```
3
```

Explanation for the sample input/output #2

One possible construction which achieves maximum number of non-degenerate triangles can be seen in the following illustration.



Sample Input #3

```
3
1 1 1
```

Sample Output #3

```
1
```