

# New Year Present

Nina received an odd New Year's present from a student: a set of  $n$  unbreakable sticks. Each stick has a length,  $l$ , and the length of the  $i^{th}$  stick is  $l_{i-1}$ . Deciding to turn the gift into a lesson, Nina asks her students the following:

How many ways can you build a square using *exactly* 6 of these unbreakable sticks?

**Note:** Two ways are distinct if they use at least one different stick. As there are  $\binom{n}{6}$  choices of sticks, we must determine which combinations of sticks can build a square.

## Input Format

The first line contains an integer,  $n$ , denoting the number of sticks. The second line contains  $n$  space-separated integers  $l_0, l_1, \dots, l_{n-2}, l_{n-1}$  describing the length of each stick in the set.

## Constraints:

$$6 \leq n \leq 3000$$

$$1 \leq l_i \leq 10^7$$

## Output Format

On a single line, print an integer representing the number of ways that 6 unbreakable sticks can be used to make a square.

## Sample Input 1

```
8
4 5 1 5 1 9 4 5
```

## Sample Output 1

```
3
```

## Sample Input 2

```
6
1 2 3 4 5 6
```

## Sample Output 2

```
0
```

## Explanation

### Sample 1

Given 8 sticks ( $l = 4, 5, 1, 5, 1, 9, 4, 5$ ), the only possible side length for our square is 5. We can build square  $S$  in 3 different ways:

- $S = \{l_0, l_1, l_2, l_3, l_4, l_6\} = \{4, 5, 1, 5, 1, 4\}$
- $S = \{l_0, l_1, l_2, l_4, l_6, l_7\} = \{4, 5, 1, 1, 4, 5\}$

3.  $S = \{l_0, l_2, l_3, l_4, l_6, l_7\} = \{4, 1, 5, 1, 4, 5\}$

In order to build a square with side length **5** using *exactly* **6** sticks,  $l_0, l_2, l_4$ , and  $l_6$  must always build two of the sides. For the remaining two sides, you must choose **2** of the remaining **3** sticks of length **5** ( $l_1, l_3$ , and  $l_7$ ).

### Sample 2

We have to use all **6** sticks, making the largest stick length (**6**) the minimum side length for our square. No combination of the remaining sticks can build **3** more sides of length **6** (total length of all other sticks is  $1 + 2 + 3 + 4 + 5 = 15$  and we need at least length  $3 * 6 = 18$ ), so we print **0**.