

# USA Computing Olympiad


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## USACO 2025 JANUARY CONTEST, BRONZE PROBLEM 2. IT'S MOOIN' TIME II

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Contest has ended.

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 English (en) ▾

Farmer John is trying to describe his favorite USACO contest to Elsie, but she is having trouble understanding why he likes it so much. He says "My favorite part of the contest was when Bessie said 'It's Mooin' Time' and mooed all over the contest."

Elsie still doesn't understand, so Farmer John downloads the contest as a text file and tries to explain what he means. The contest is defined as an array of  $N$  ( $1 \leq N \leq 10^6$ ) integers  $a_1, a_2, \dots, a_N$  ( $1 \leq a_i \leq N$ ). Farmer John defines a moo as an array of three integers where the second integer equals the third but not the first. A moo is said to occur in the contest if it is possible to remove integers from the array until only the moo remains.

As Bessie allegedly "mooed all over the contest", help Elsie count the number of distinct moos that occur in the contest! Two moos are distinct if they do not consist of the same integers in the same order.

### INPUT FORMAT (input arrives from the terminal / stdin):

The first line contains  $N$ .

The second line contains  $N$  space-separated integers  $a_1, a_2, \dots, a_N$ .

### OUTPUT FORMAT (print output to the terminal / stdout):

Output the number of distinct moos that occur in the contest.

**\*\*Note that the large size of integers involved in this problem may require the use of 64-bit integer data types (e.g., a "long" in Java, a "long long" in C/C++).\*\***

### SAMPLE INPUT:

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

### SAMPLE OUTPUT:

```
3
```

This contest has three distinct moos: "1 4 4", "2 4 4", and "3 4 4".

### SCORING:

- Inputs 2-4:  $N \leq 10^2$
- Inputs 5-7:  $N \leq 10^4$
- Inputs 8-11: No additional constraints.

Problem credits: Benjamin Qi

Contest has ended. No further submissions allowed.