

Just One Swap

You are given an array of size N. How many distinct arrays can you generate by swapping two numbers for exactly once? The two selected numbers can be equal but their positions in the array must be different.

Input

The first line of the input contains a single integer T, denoting the number of test cases. Every test case starts with an integer N. The next line contains N integers, the numbers of the array.

Output

For each test case output the answer in a single line.

Constraints:

$$1 \leq T \leq 5$$

$$1 \leq \text{Value of a number in the array} \leq 100000$$

$$2 \leq N \leq 100000$$

Example

Input:

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

Output:

```
7
```

You can generate the following arrays:

```
2 3 2 3 3
```

```
2 2 3 3 3
```

```
2 3 3 2 3
```

```
2 3 3 3 2
```

```
3 2 2 3 3
```

```
3 3 2 2 3
```

```
3 3 2 3 2
```