# 3 Values Sort

*Time limit: 1 sec*

Given an array of  N elements such that each element is either 1, 2 or 3. Your task is to sort this array. The sort can be done by an operation called swap. Each swap switches elements in two positions. For example, swap(1,10)  exchanges the element at the position 1 with the element at the position 10. Your task is to sort this array using smallest number of swap.

## Input

- The first line of input gives the number of element **N**. (1 <= N <= 100,000)
- The next line contains N integers that represents the array. The value of each number is either 1, 2 or 3.

## Output

The output must contain exactly one line containing the minimum number of call to swap that sort the array.

## Example

| Input | Output |
|---|---|
| 7<br>2 2 1 3 2 1 3 | 3 |
| 11<br>1 1 1 2 2 2 3 3 3 3 3 | 0 |