



Sock Merchant ☆

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Problem

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Editorial

John works at a clothing store. He has a large pile of socks that he must pair by color for sale. Given an array of integers representing the color of each sock, determine how many pairs of socks with matching colors there are.

For example, there are $n = 7$ socks with colors $ar = [1, 2, 1, 2, 1, 3, 2]$. There is one pair of color **1** and one of color **2**. There are three odd socks left, one of each color. The number of pairs is **2**.

Function Description

Complete the sockMerchant function in the editor below. It must return an integer representing the number of matching pairs of socks that are available.

sockMerchant has the following parameter(s):

- n : the number of socks in the pile
- ar : the colors of each sock

Input Format

The first line contains an integer n , the number of socks represented in ar .

The second line contains n space-separated integers describing the colors $ar[i]$ of the socks in the pile.

Constraints

- $1 \leq n \leq 100$
- $1 \leq ar[i] \leq 100$ where $0 \leq i < n$

Output Format

Return the total number of matching pairs of socks that John can sell.

Sample Input

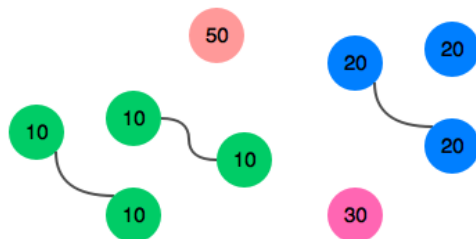
```
9
10 20 20 10 10 30 50 10 20
```

Sample Output

```
3
```

Explanation





John can match three pairs of socks.

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Java 8



```

13 public class Solution {
14
15     // Complete the sockMerchant function below.
16     static int sockMerchant(int n, int[] ar) {
17
18     List<String> listString = Arrays.stream(ar).boxed().map(x -> x.toString()).collect
19     (Collectors.toList());
20     Map<String, Integer> collect = listString.parallelStream().collect
21     (Collectors.toConcurrentMap(w -> w, w -> 1, Integer::sum));
22     int numSocks = 0;
23     for (Map.Entry<String, Integer> entry : collect.entrySet()) {
24         numSocks+=entry.getValue()/2;
25     }
26     return numSocks;
27 }
28
29 private static final Scanner scanner = new Scanner(System.in);
30
31 public static void main(String[] args) throws IOException {
32     BufferedWriter bufferedWriter = new BufferedWriter(new FileWriter(System.getenv
33     ("OUTPUT_PATH")));
34
35     int n = scanner.nextInt();
36     scanner.skip("(\\r\\n|\\n\\r\\u2028\\u2029\\u0085)?");
37
38     int[] ar = new int[n];
39
40     String[] arItems = scanner.nextLine().split(" ");
41     scanner.skip("(\\r\\n|\\n\\r\\u2028\\u2029\\u0085)?");
42
43     for (int i = 0; i < n; i++) {
44         int arItem = Integer.parseInt(arItems[i]);
45         ar[i] = arItem;
46     }
47 }

```

Line: 21 Col: 70

☒ Upload Code as File

☐ Test against custom input

Run Code

Submit Code

You have earned 10.00 points!

These points will also count towards your progress in the Problem Solving Badge.

33%

10/30





Congratulations

You solved this challenge. Would you like to challenge your friends?

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✓ Test case 0

✓ Test case 1

✓ Test case 2

✓ Test case 3

✓ Test case 4

✓ Test case 5

✓ Test case 6

Compiler Message

Success

Input (stdin)

```
1 9
2 10 20 20 10 10 30 50 10 20
```

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Expected Output

```
1 3
```

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