

Jolly Jumpers

#10038 - Jolly Jumpers:

Take the absolute difference between a sequence of numbers, ie, [1, 4, 2, 3]:

$$|(1-4)|=3$$

$$|(4-2)|=2$$

$$|(2-3)|=1$$

$$N=4$$

Goal: Create the list up to $n-1$ (aka 3 in this instance) - which we have done here ala 1,2 and 3.

This is considered a “jolly jumper”

- Loop through $n \rightarrow n-1$ to create the set
- Find the difference between each pair $(i, i+1 \dots)$ as we iterate through
- If difference is greater than the last n return false else true

[1, 4, 2, 3]: True

[1, 5, 2, 7]: False

Our approach was to iterate over each number and keep a hashmap of the difference if we encountered any difference out of the range or that previously had a value then return “not jolly”. If none of those cases happen then return “jolly”

Test Case: 1 2

Jolly

Test Case: 3 1 2 3

Not jolly

Problems when Submitting

- Had a continue in a if statement that messed up the count for the scanners

```
import java.util.HashMap;
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

        while(scan.hasNextInt()) {

            HashMap<Integer, Boolean> map = new HashMap<>();

            int n = scan.nextInt();
            int[] arr = new int[n];
            for (int k = 0; k < n; k++) {
                arr[k] = scan.nextInt();
            }

            boolean flag = true;

            for(int i = 0; i < n-1; i++) {

                int val = Math.abs(arr[i] - arr[i+1]);
```

```
    // check if the difference is out of range or is not unique
    if (val == 0 || val > (n - 1) || (map.get(val) != null)) {
        flag = false;
    }

    map.put(val, true);

}

if(flag) {
    System.out.println("Jolly");
} else {
    System.out.println("Not jolly");
}

}

}

}
```