

# Task – 3

1. Given a binary array nums, return the maximum number of consecutive 1's in the array.

Sample Input

```
nums = [1,1,0,1,1,1]
```

Sample Output

3

2. Find the frequency of each element in the array

Sample Input

```
nums = [1, 5, 3, 1, 3, 5, 6]
```

Sample Output

1-2

5-2

3-2

6-1

3. Given an integer array `nums`, return the third distinct maximum number in this array. If the third maximum does not exist, return the maximum number.

Sample Input

```
nums = [3,2,1]
```

Sample Output

1

Sample Input

```
nums = [2,1]
```

Sample Output

2

4. Given an array of even size, task is to find minimum value that can be added to an element so that array become balanced.

An array is balanced if the sum of the left half of the array elements is equal to the sum of right half.

Suppose, we have an array 1 3 1 2 4 3.

The Sum of first three elements is  $1 + 3 + 1 = 5$  and sum of last three elements is  $2 + 4 + 3 = 9$

So this is unbalanced, to make it balanced the minimum number we can add is 4 to any element in first half.

Sample Input

nums : 1 2 1 2 1 3

Sample Output

2

Explanation

Sum of first 3 elements is  $1 + 2 + 1 = 4$ ,

sum of last three elements is  $2 + 1 + 3 = 6$

To make the array balanced you can add 2.