

# Sub array with matching degree

**problem** : given array with repeated characters, degree of array is maximum no of any character repetition. find the smallest subarray with same indegree.

<https://leetcode.com/problems/degree-of-an-array/>

solution:

take two map to keep track of left index of an element, right index of an element and one map to keep character with repetition count.

then find max values from count map. that will be degree of map.

now find the char which has max degree.

then find left and right index with given map.

return min length of subarray with matching degree

```
class Solution {
    public int findShortestSubArray(int[] nums) {
        Map<Integer,Integer> left = new HashMap<>(),
        right = new HashMap<>(), count = new HashMap<>();

        for(int i=0; i < nums.length; i++){
            if(left.get(nums[i]) == null) left.put(nums[i], i);
            right.put(nums[i], i);
            count.put(nums[i], count.getOrDefault(nums[i], 0)+1);
        }

        int ans = nums.length;
        int degree = Collections.max(count.values());
        for(Integer x : count.keySet()){
            if(de == count.get(x)){
                ans = Math.min(ans, right.get(x) - left.get(x)+1);
            }
        }
        return ans;
    }
}
```