

Hashmap.

add  
delete  
get  
search

$O(1)$

$(K, V)$

not perfect  
 $O(1)$

K are unique.

India	420
China,	400
USA,	200
Jap	480

const.  
 $O(1)$

DS

init  
add  
get  
remove  
travel.

haskeyset()

Two Sum LC-1

LC-128

LC-217

LC-169

LC-771

LC-1684

LC-1207

LC-349

LC-268

# 128. Longest Consecutive Sequence

Medium 18462 836 Add to List Share

Given an unsorted array of integers `nums`, return the length of the longest consecutive elements sequence.

You must write an algorithm that runs in  $O(n)$  time.

Input: `nums = [100, 4, 200, 1, 3, 2]`

Output: 4

↑ ↑ ↑ ↑ ↑

ele = 100

→ check if ele present or not (hs)

ple = 99  
pre = 101

→ remove

ele  
len = (pre - ple - 1)

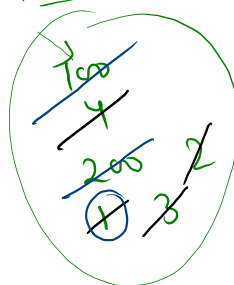
= 101 - 99 - 1  
2 - 1

len = 1

ans = 4

len = 0

Hashset



200

ple = 199  
pre = 201

len =

201 - 199  
- 1  
= 1

ele = 4

ple = 3  
pre = 5

5 - 0 - 1

= 5 - 1

= 4

hashset → set

put → add

get → get

remove → remove

containsKey → contains.

## 771. Jewels and Stones

Easy 4845 563 Add to List Share

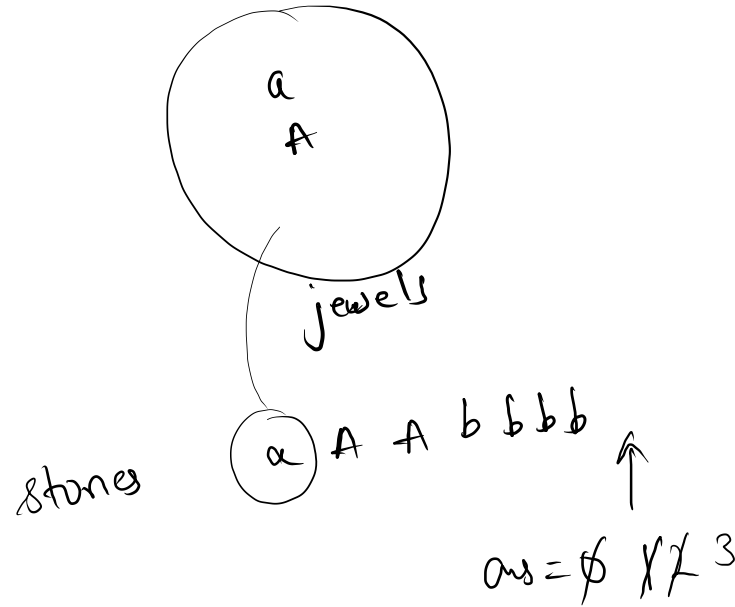
You're given strings `jewels` representing the types of stones that are jewels, and `stones` representing the stones you have. Each character in `stones` is a type of stone you have. You want to know how many of the stones you have are also jewels.

Letters are case sensitive, so `"a"` is considered a different type of stone from `"A"`.

### Example 1:

Input: `jewels = "aA"`, `stones = "aAAabbbb"`

Output: 3



## 1684. Count the Number of Consistent Strings

Easy 1597 62 Add to List Share

You are given a string `allowed` consisting of **distinct** characters and an array of strings `words`. A string is **consistent** if all characters in the string appear in the string `allowed`.

Return the number of **consistent** strings in the array `words`.

### Example 1:

Input: `allowed = "ab"`, `words = ["ad","bd","aaab","baa","badab"]`

Output: 2

Explanation: Strings "aaab" and "baa" are consistent since they only contain characters 'a' and 'b'.

Handwritten diagram showing a circle containing the characters 'a' and 'b', with the label 'hs' written below it.

Handwritten text:  $ms = \emptyset$

Handwritten text: "ad" with an upward arrow pointing to it.

Handwritten text: "bd" with an upward arrow pointing to it.

Handwritten text: "aaab" circled, with an upward arrow pointing to it.

1207. Unique Number of Occurrences

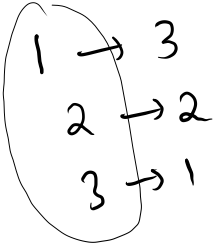
Easy 4241 101 Add to List Share

Given an array of integers `arr`, return `true` if the number of occurrences of each value in the array is unique or `false` otherwise.

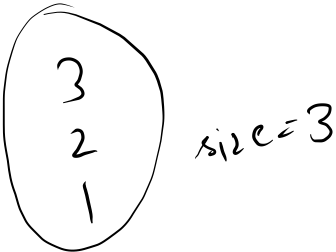
Example 1:

Input: `arr = [1,2,2,1,1,3]`  
Output: `true`  
Explanation: The value 1 has 3 occurrences, 2 has 2 and 3 has 1. No two values have the same number of occurrences.

freq map



hset



$$\text{freq.size} == \text{hset}$$

### 349. Intersection of Two Arrays

Easy   5309   2195   Add to List   Share

Given two integer arrays `nums1` and `nums2`, return *an array of their intersection*. Each element in the result must be **unique** and you may return the result in **any order**.

#### Example 1:

Input: `nums1 = [1,2,2,1]`, `nums2 = [2,2]`

Output: `[2]`

nums1 → 1 2 2 1  
          =   ↑   ↑   ↑   ↑

nums2 → 2 2

○ nums2

▭ 2