We should firstly understand the problem. So we need to find the length of the longest subsequence. Subsequence means the part of the array:  $m_{\rm cos} = 1,3,5,6,7$  in this array successences can be [1,3]; [3,5]; [1,3,5]; and so on

runes = [1,3,5,7,7] in this case answer will be 3 and subsequence looks like this: nums = [1,3,5,6,7] in this case answer will be 3 and subsequence in which elements increasing continuous, and we can not move or sort given arm nums = [1,3,5,6,7] in this case answer will be 3 and subsequence looks like this: nums = [1,3,5]

the array: nums = [1, 3, 5, 4, 7] will use loop to solve it, it will go through each index of the nums list and compare the

nums = [1,3,5,4,7]

[1]=3 [0]=1 1<3, increase [2]=5 [1]-3 5<5, increase [3]=4 [2]=5 5>4, to the toreating tolerance is broken

so we should to store the length and then return it.

Also to find the longest subsequent from several we should to have "oxed from the longest subsequent from several we should to have "oxed on to do this we have:

"excell "a O and acchor a O
result = 1 - anchor + 1

Res = 1-0+1 = 2 1 Res = 2-011= 3.

Res = 3 · 3 +1 : 1

Res = 4 - 3 +1=1

Then we continue: [4] = 4 [3] = 4 4 ct, uncreases -

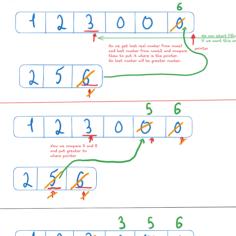
We get this 2 result and return ma

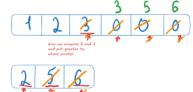
In the end result will be 3

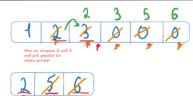
Merge Sorted Array

Given two sorted integer arrays <u>nums</u>1 and <u>nums2</u>, we should to me

menge nums1 has a length o nums1 = [1,2,3,0,0,0] nums2 = [2,5,6] ns that there is e









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Given two integer arrays nums1 and nums2, We should to return an array of their intersection and element in result array must be unique and any order.



In this case we have duplicates, like we have two 2, but for intersection for output we don't consider duplicates

[4,9,5]

Hoishset >[x,x,5] Next, we want to go through the e in the second array and find the co for hash set and second array. [9,4,9,8,4] [9,4]

now we get 9 so we might end up with duplicates in the output. So to handle this the first time we saw 9 we should remove it from hash set, same thing with 9