Remove Duplicates from sorted array

Given a sorted array nums, remove duplicates in-place so that each unique element appears only once
Return k = no. of unique elements. The first 'k' elements of 'nums' should contain unique numbers in order

Ex:

nums = [0,0,1,1,1,2,2,3,3,4]

output: k=5, nums = [0,1,2,3,4,_,_,_,_,_]

constraints:

- nums.length <= $3 * 10^4$
- -100 <= nums[i] <= 100
- nums is sorted

Algorithm

1) Input a sorted array nums
2) Initialise i=0 → keeps track of index of last unique element
3) Iterate j from 1 to nums.length-1
   → if nums[j] is not equal to nums[i]
   → increment 'i' → move to next position for unique elements
   → Assign nums[i] = nums[j]
   → move new unique element to front

4) return i+1 → no. of unique elements 'k'

Code:

```
int i=0;    // last unique element index

for(int j=1; j<nums.length; j++){  // iterate through array

    if(nums[j] != nums[i]){  // found a new unique element
        i++;                 // move to next position for unique element
        nums[i] = nums[j];   // place new unique element at front
    }
}

return i+1;  // total no. of unique elements
```