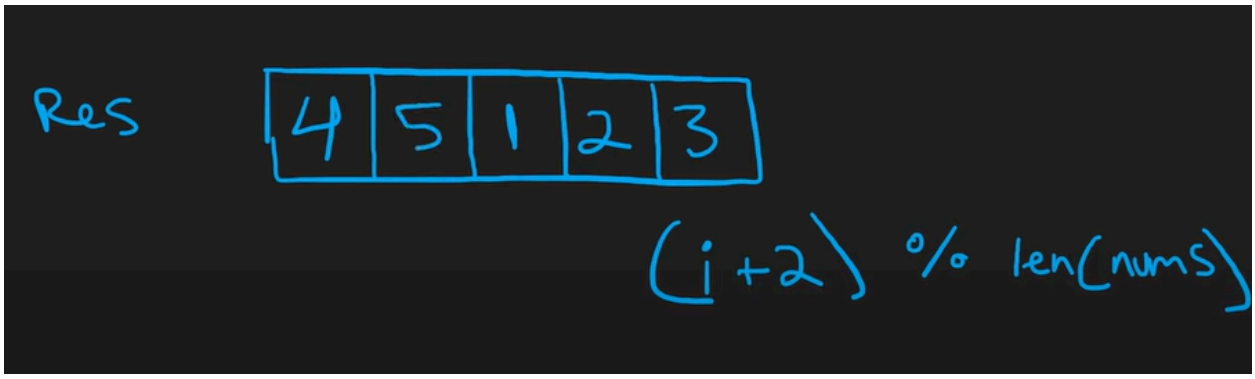
189. Rotate Array

Initial Thoughts:

1. I can solve this using some extra space
2. Here we'll take a list of len(nums)

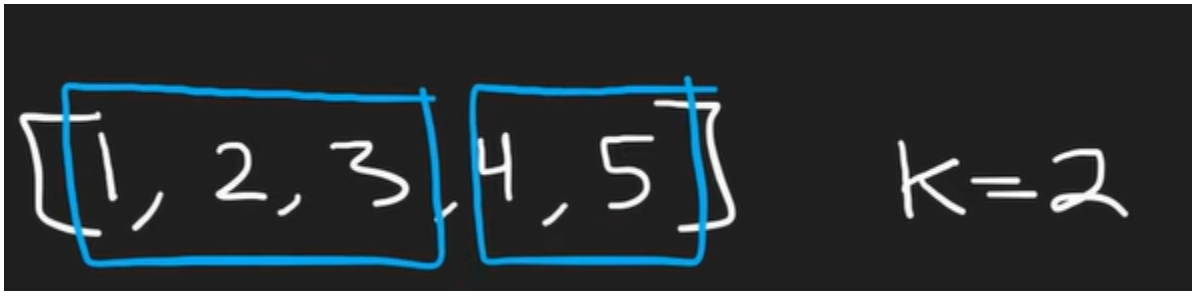
3. Now we'll iterate the nums and insert the element in RES at index (i+k)%len(nums)



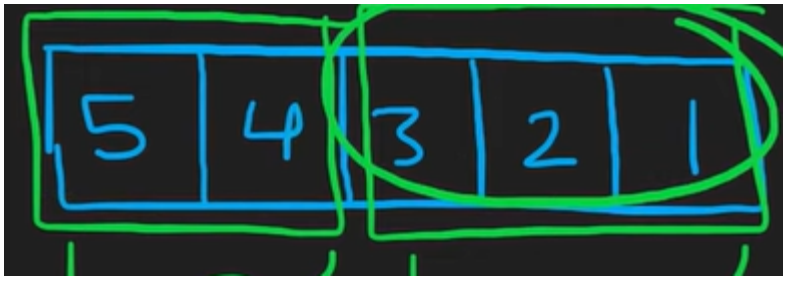
4. Now we'll copy this result into nums and return the nums

Optimized Solution (O(n) & O(1)):

1. Given array



   and to rotate the array k = 2
2. Now what if we reversed our entire array?

3. We'd get 

4. Now lets reverse the first k elements and also reverse elements from k+1 to len(nums)
5. We'd get 

Code:

1. My code using the helper function

```
class Solution:
    def rotate(self, nums: List[int], k: int) -> None:
        """
        Do not return anything, modify nums in-place instead.
        """
        k = k%len(nums)
        self.HelpR(0,len(nums)-1,nums)
        self.HelpR(0,k-1,nums)
        self.HelpR(k,len(nums)-1,nums)

    def HelpR(self,l,r,nums):
        while(l<r):
            nums[l],nums[r] = nums[r],nums[l]
            l,r = l+1,r-1
        return nums
```