

189. Rotate Array

Description

Given an integer array `nums`, rotate the array to the right by `k` steps, where `k` is non-negative.

Example 1:

Input: `nums = [1,2,3,4,5,6,7]`, `k = 3`

Output: `[5,6,7,1,2,3,4]`

Explanation:

rotate 1 steps to the right: `[7,1,2,3,4,5,6]`

rotate 2 steps to the right: `[6,7,1,2,3,4,5]`

rotate 3 steps to the right: `[5,6,7,1,2,3,4]`

Example 2:

Input: `nums = [-1,-100,3,99]`, `k = 2`

Output: `[3,99,-1,-100]`

Explanation:

rotate 1 steps to the right: `[99,-1,-100,3]`

rotate 2 steps to the right: `[3,99,-1,-100]`

Constraints:

- $1 \leq \text{nums.length} \leq 10^5$
- $-2^{31} \leq \text{nums}[i] \leq 2^{31} - 1$
- $0 \leq k \leq 10^5$

Follow up:

- Try to come up with as many solutions as you can. There are at least **three** different ways to solve this problem.
- Could you do it in-place with $O(1)$ extra space?

