K Radius Subarray Averages

You are given a **0-indexed** array nums of n integers, and an integer k.

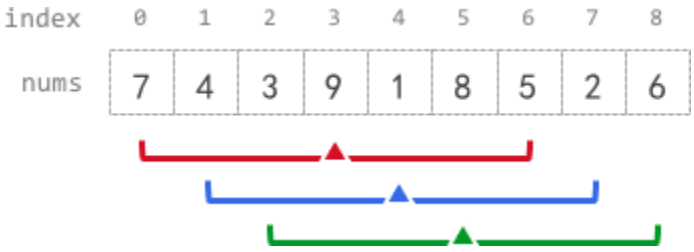
The **k-radius average** for a subarray of nums **centered** at some index i with the **radius** k is the average of **all** elements in nums between the indices i - k and i + k (**inclusive**). If there are less than k elements before **or** after the index i, then the **k-radius average** is -1.

Build and return *an array* avgs *of length* n *where* avgs[i] *is the* ***k-radius average*** *for the subarray centered at index* i.

The **average** of x elements is the sum of the x elements divided by x, using **integer division**. The integer division truncates toward zero, which means losing its fractional part.

- For example, the average of four elements 2, 3, 1, and 5 is (2 + 3 + 1 + 5) / 4 = 11 / 4 = 2.75, which truncates to 2.

Example 1:



Input: nums = [7,4,3,9,1,8,5,2,6], k = 3

Output: [-1,-1,-1,5,4,4,-1,-1,-1]

Explanation:

- avg[0], avg[1], and avg[2] are -1 because there are less than k elements **before** each index.

- The sum of the subarray centered at index 3 with radius 3 is: 7 + 4 + 3 + 9 + 1 + 8 + 5 = 37.

  Using **integer division**, avg[3] = 37 / 7 = 5.

- For the subarray centered at index 4, avg[4] = (4 + 3 + 9 + 1 + 8 + 5 + 2) / 7 = 4.

- For the subarray centered at index 5, avg[5] = (3 + 9 + 1 + 8 + 5 + 2 + 6) / 7 = 4.

- avg[6], avg[7], and avg[8] are -1 because there are less than k elements **after** each index.

Example 2:

Input: nums = [100000], k = 0

Output: [100000]

Explanation:

- The sum of the subarray centered at index 0 with radius 0 is: 100000.

avg[0] = 100000 / 1 = 100000.

Example 3:

Input: nums = [8], k = 100000

Output: [-1]

Explanation:

- avg[0] is -1 because there are less than k elements before and after index 0.

Constraints:

- n == nums.length
- $1 <= n <= 10^5$
- $0 <= nums[i], k <= 10^5$