

## 55939. K Radius Subarray Averages

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

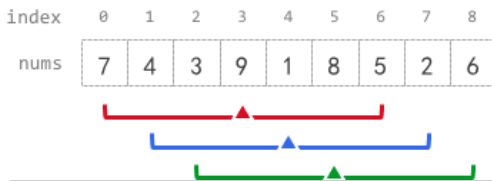
The **k-radius average** for a subarray of `nums` **centered** at some index `i` with the **radius** `k` is the average of **all** elements in `nums` between the indices `i - k` and `i + k` (**inclusive**). If there are less than `k` elements before **or** after the index `i`, then the **k-radius average** 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  $(2 + 3 + 1 + 5) / 4 = 11 / 4 = 3.75$ , which truncates to `3`.

## 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`

JavaScript




1 // \*\*

```
2  * @param {number[]} nums
3  * @param {number} k
4  * @return {number[]}
5  */
6  var getAverages = function(nums, k) {
7
8  };
```

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