813. Largest Sum of Averages

Description

You are given an integer array `nums` and an integer `k`. You can partition the array into **at most** `k` non-empty adjacent subarrays. The **score** of a partition is the sum of the averages of each subarray.

Note that the partition must use every integer in `nums`, and that the score is not necessarily an integer.

Return *the maximum* **score** *you can achieve of all the possible partitions*. Answers within 10^{-6} of the actual answer will be accepted.

Example 1:

```
Input: nums = [9,1,2,3,9], k = 3
Output: 20.00000
Explanation:
The best choice is to partition nums into [9], [1, 2, 3], [9]. The answer is 9 + (1 + 2 + 3) / 3 + 9 = 20.
We could have also partitioned nums into [9, 1], [2], [3, 9], for example.
That partition would lead to a score of 5 + 2 + 6 = 13, which is worse.
```

Example 2:

```
Input: nums = [1,2,3,4,5,6,7], k = 4
Output: 20.50000
```

Constraints:

- `1 <= nums.length <= 100`
- `1 <= nums[i] <= 10`^{4}
- `1 <= k <= nums.length`