

2966. Divide Array Into Arrays With Max Difference

Description

You are given an integer array `nums` of size `n` and a positive integer `k`.

Divide the array into one or more arrays of size `3` satisfying the following conditions:

- Each element of `nums` should be in **exactly** one array.
- The difference between **any** two elements in one array is less than or equal to `k`.

Return **a 2D array containing all the arrays**. If it is impossible to satisfy the conditions, return an empty array. And if there are multiple answers, return **any** of them.

Example 1:

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

Output: `[[1,1,3],[3,4,5],[7,8,9]]`

Explanation: We can divide the array into the following arrays: `[1,1,3]`, `[3,4,5]` and `[7,8,9]`.

The difference between any two elements in each array is less than or equal to 2.

Note that the order of elements is not important.

Example 2:

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

Output: `[]`

Explanation: It is not possible to divide the array satisfying all the conditions.

Constraints:

- `n == nums.length`
- `1 <= n <= 105`
- `n` is a multiple of `3`.
- `1 <= nums[i] <= 105`
- `1 <= k <= 105`

