908. Smallest Range I

Description

You are given an integer array `nums` and an integer `k`.

In one operation, you can choose any index `i` where `0 <= i < nums.length` and change `nums[i]` to `nums[i] + x` where `x` is an integer from the range `[-k, k]`. You can apply this operation **at most once** for each index `i`.

The **score** of `nums` is the difference between the maximum and minimum elements in `nums`.

Return *the minimum **score** of* `nums` *after applying the mentioned operation at most once for each index in it*.

Example 1:

```
Input: nums = [1], k = 0
Output: 0
Explanation: The score is max(nums) - min(nums) = 1 - 1 = 0.
```

Example 2:

```
Input: nums = [0,10], k = 2
Output: 6
Explanation: Change nums to be [2, 8]. The score is max(nums) - min(nums) = 8 - 2 = 6.
```

Example 3:

```
Input: nums = [1,3,6], k = 3
Output: 0
Explanation: Change nums to be [4, 4, 4]. The score is max(nums) - min(nums) = 4 - 4 = 0.
```

Constraints:

- `1 <= nums.length <= 10^4`
- `0 <= nums[i] <= 10^4`
- `0 <= k <= 10^4`