

Find K-th Smallest Pair Distance

The **distance of a pair** of integers a and b is defined as the absolute difference between a and b.

Given an integer array nums and an integer k, return *the kth smallest distance among all the pairs* nums[i] and nums[j] where $0 \leq i < j < \text{nums.length}$.

Example 1:

Input: nums = [1,3,1], k = 1

Output: 0

Explanation: Here are all the pairs:

(1,3) -> 2

(1,1) -> 0

(3,1) -> 2

Then the 1st smallest distance pair is (1,1), and its distance is 0.

Example 2:

Input: nums = [1,1,1], k = 2

Output: 0

Example 3:

Input: nums = [1,6,1], k = 3

Output: 5

Constraints:

- $n == \text{nums.length}$
- $2 \leq n \leq 10^4$
- $0 \leq \text{nums}[i] \leq 10^6$
- $1 \leq k \leq n * (n - 1) / 2$