

## 2616. Minimize the Maximum Difference of Pairs

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You are given a **0-indexed** integer array `nums` and an integer `p`. Find `p` pairs of indices of `nums` such that the **maximum** difference among all pairs is **minimized**. Note that for a pair of elements at the index `i` and `j`, the difference of this pair is  $|\text{nums}[i] - \text{nums}[j]|$ , where  $|x|$  represents the **absolute value** of  $x$ . Return the **minimum maximum** difference among all `p` pairs. We define the maximum of an empty set to be zero.

### Example 1:

**Input:** `nums = [10,1,2,7,1,3], p = 2`  
**Output:** `1`  
**Explanation:** The first pair is formed from the indices 1 and 4, and the second pair is formed from the indices 2 and 5. The maximum difference is  $\max(|\text{nums}[1] - \text{nums}[4]|, |\text{nums}[2] - \text{nums}[5]|) = \max(0, 1) = 1$ . Therefore, the answer is 1.

### Example 2:

**Input:** `nums = [4,2,1,2], p = 1`  
**Output:** `0`  
**Explanation:** Let the indices 1 and 3 form a pair. The difference of that pair is  $|2 - 2| = 0$ , which is the minimum possible maximum difference.

### Constraints:

- $1 \leq \text{nums.length} \leq 10^5$
- $0 \leq \text{nums}[i] \leq 10^9$
- $0 \leq p \leq (\text{nums.length})/2$

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