Given an array A of integers, for each integer A[i] we may choose any x with -K <= x <= K, and add x to A[i].

After this process, we have some array B.

Return the smallest possible difference between the maximum value of B and the minimum value of B.

**Example 1:**

**Input:** A = [1], K = 0

**Output:** 0

**Explanation**: B = [1]

**Example 2:**

**Input:** A = [0,10], K = 2

**Output:** 6

**Explanation**: B = [2,8]

**Example 3:**

**Input:** A = [1,3,6], K = 3

**Output:** 0

**Explanation**: B = [3,3,3] or B = [4,4,4]

**Note:**

1. 1 <= A.length <= 10000
2. 0 <= A[i] <= 10000
3. 0 <= K <= 10000