



Find Pair Given Difference



Easy

Accuracy: 27.25%

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Given an array `arr[]` of size `n` and an integer `x`, return 1 if there exists a pair of elements in the array whose absolute difference is `x`, otherwise, return -1.

Example 1:**Input:**`n = 6``x = 78``arr[] = {5, 20, 3, 2, 5, 80}`**Output:**`1`**Explanation:**

Pair (2, 80) have absolute difference of 78.

Example 2:**Input:**`n = 5``x = 45``arr[] = {90, 70, 20, 80, 50}`**Output:**`-1`**Explanation:**

There is no pair with absolute difference of 45.

Your Task:

You need not take input or print anything. Your task is to complete the function `findPair()` which takes integers `n`, `x`, and an array `arr[]` as input parameters and returns 1 if the required pair exists, return -1 otherwise.



Expected Time Complexity: $O(n \cdot \log(n))$.

Expected Auxiliary Space: $O(1)$.

Constraints:

$1 \leq n \leq 10^6$

$1 \leq \text{arr}[i] \leq 10^6$

$0 \leq x \leq 10^5$

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1/4

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Python3

Average Time: 15m

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```
1 from typing import List
2
3 class Solution:
4     def findPair(self, n: int, x: int, arr: List[int]) -> int:
5         arr.sort()
6         left = 0
7         right = 1
8
9         while left < n and right < n:
10             if left != right and arr[right] - arr[left] == x:
11                 return 1
12             elif arr[right] - arr[left] < x:
13                 right += 1
14             else:
15                 left += 1
16
17         return -1
18
19
20
21
22
23 ☐# } Driver Code Ends
```

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