

Q).Counting Elements

Given an integer array arr, count how many elements x there are, such that $x + 1$ is also in arr. If there are duplicates in arr, count them separately.

Example

Input: arr = [1,2,3]

Output: 2

Explanation: 1 and 2 are counted cause 2 and 3 are in arr..

Program:

```
def count_elements(arr):
    num_count = {}
    for num in arr:
        num_count[num] = num_count.get(num, 0)
    + 1
    count = 0
    for num in arr:
        if num + 1 in num_count:
            count += num_count[num]
    return count
arr = [1, 2, 3]
print(count_elements(arr))
```

Output:

```
C:\Users\srika\Desktop\CSA0863\pythonProject\.venv\Scripts\python.exe C:\Users\srika\Desktop\CSA0863\pythonProject\problem.py
2
Process finished with exit code 0
```

Time complexity: $O(2n)$