Problem 1010: Pairs of Songs With Total Durations Divisible by 60

Problem Information

Difficulty: Medium
Acceptance Rate: 53.38%
Paid Only: No
Tags: Array, Hash Table, Counting

Problem Description

You are given a list of songs where the `ith` song has a duration of `time[i]` seconds.

Return _the number of pairs of songs for which their total duration in seconds is divisible by_ `60`. Formally, we want the number of indices `i`, `j` such that `i < j` with `(time[i] + time[j]) % 60 == 0`.

Example 1:

Input: time = [30,20,150,100,40] **Output:** 3 **Explanation:** Three pairs have a total duration divisible by 60: (time[0] = 30, time[2] = 150): total duration 180 (time[1] = 20, time[3] = 100): total duration 120 (time[1] = 20, time[4] = 40): total duration 60

Example 2:

Input: time = [60,60,60] **Output:** 3 **Explanation:** All three pairs have a total duration of 120, which is divisible by 60.

Constraints:

* `1 <= time.length <= 6 * 104` * `1 <= time[i] <= 500`

Code Snippets

C++:

```
class Solution {
public:
int numPairsDivisibleBy60(vector<int>& time) {

}
};
```

Java:

```
class Solution {
public int numPairsDivisibleBy60(int[] time) {

}
}
```

Python3:

```
class Solution:
def numPairsDivisibleBy60(self, time: List[int]) -> int:
```