For arithmetic slices we need to find atleast 3 numbers which difference between any two consecutive numbers is the same.

Since we are traversing a given array, the difference between two consecutive numbers can be found with

array[i] - array[i-1] = array[i-1] - array[i-2]

With i being a counter for the index of the array and since we need to find 3 consecutive numbers the counter should start at index 2 since we are looking for a match such as this:

[1,3,5]

array[i] = 5

array[i-1] = 3

array[i-2] = 1

5-3 = 3-1 ----- true

If we try storing this value in a counter then we run into a problem when trying to find slices of 4 or more elements since to do so we would need multiple loops, elevating the time complexity.

To solve this we can create an array that has the same length as the given array.

Then in this array we would store if the "arithmetic slice" up until the current index is true.

If the slice in the last index is true and thge slice in the next index is also true then we would have a total of 3 slices since these two 3 item slices would be a slice of 4 item also.

For example:

Given array: [1,3,5,7]

From the previous example we know that 1,3,5 is a slice.

Now 3,5,7 is also a slice, since the difference between the numbers is the same.

Since both subarrays are slices then it means the whole array is also a slice 1,3,5,7.

Using both a loop and a new array will help us store this truths, then we just need to sum all the elements in the new array to obtain our total number of arithmetic slices.