Intersection of Three Sorted Arrays

Given three integer arrays arr1, arr2 and arr3 sorted in strictly increasing order, return a sorted
array of only the integers that appeared in all three arrays.

Example 1:

Input: arr1 = [1,2,3,4,5], arr2 = [1,2,5,7,9], arr3 = [1,3,4,5,8]

Output: [1,5]

Program:

```
def arraysIntersection(arr1, arr2, arr3):
    i, j, k = 0, 0, 0
    result = []
    while i < len(arr1) and j < len(arr2) and k < len(arr3):
        if arr1[i] == arr2[j] == arr3[k]:
            result.append(arr1[i])
            i += 1
            j += 1
            k += 1
        elif arr1[i] < arr2[j]:
            i += 1
        elif arr2[j] < arr3[k]:
            j += 1
        else:
            k += 1
```

```
    return result
arr1 = [1, 2, 3, 4, 5]
arr2 = [1, 2, 5, 7, 9]
arr3 = [1, 3, 4, 5, 8]
print(arraysIntersection(arr1, arr2, arr3))
```

Output:

Time complexity:

O(n)