eric496 ★ 114 Last Edit: October 24, 2019 3:51 AM 1.2K VIEWS

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```
class Solution:
    def arraysIntersection(self, arr1: List[int], arr2: List[int], arr3: List[int]) -> List[int]:
        i = j = k = 0
        res = []

        while i < len(arr1) and j < len(arr2) and k < len(arr3):
            if arr1[i] == arr2[j] == arr3[k]:
                res.append(arr1[i])
                i += 1
                j += 1
                k += 1
                continue

            max_ = max(arr1[i], arr2[j], arr3[k])

            if arr1[i] < max_:
                i += 1

            if arr2[j] < max_:
                j += 1

            if arr3[k] < max_:
                k += 1

        return res
```

More syntactically concise:

```
class Solution:
    def arraysIntersection(self, arr1: List[int], arr2: List[int], arr3: List[int]) -> List[int]:
        i = j = k = 0
        res = []

        while i<len(arr1) and j<len(arr2) and k<len(arr3):
            if arr1[i] == arr2[j] == arr3[k]:
                res.append(arr1[i])
                i, j, k = i+1, j+1, k+1
                continue

            max_ = max(arr1[i], arr2[j], arr3[k])
            i = i+1 if arr1[i]<max_ else i
            j = j+1 if arr2[j]<max_ else j
            k = k+1 if arr3[k]<max_ else k

        return res
```