

Prompt	Scratchpad	Our Solution(s)	Video Explanation	Run Code
--------	------------	-----------------	-------------------	----------

Solution 1

Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // O(nk) time | O(n + k) space - where n is the total
4 // number of array elements and k is the number of arrays
5 ▾ function mergeSortedArrays(arrays) {
6     const sortedList = [];
7     const elementIdxs = arrays.map(() => 0);
8     ▾ while (true) {
9         const smallestItems = [];
10        ▾ for (let arrayIdx = 0; arrayIdx < arrays.length; arrayIdx++) {
11            const relevantArray = arrays[arrayIdx];
12            const elementIdx= elementIdxs[arrayIdx];
13            if (elementIdx=== relevantArray.length) continue;
14        ▾ smallestItems.push({
15            arrayIdx,
16            num: relevantArray[elementIdx],
17        });
18        }
19        if (smallestItems.length === 0) break;
20        const nextItem = getMinValue(smallestItems);
21        sortedList.push(nextItem.num);
22        elementIdxs[nextItem.arrayIdx]++;
23    }
24    return sortedList;
25 }
26
27 ▾ function getMinValue(items) {
28     let minValueIdx = 0;
29     ▾ for (let i = 1; i < items.length; i++) {
30         if (items[i].num < items[minValueIdx].num) minValueIdx = i;
31     }
32     return items[minValueIdx];
33 }
34
35 exports.mergeSortedArrays = mergeSortedArrays;
36
```

