Merge Without Extra Space

Difficulty: **Medium**   Accuracy: **32.01%**   Submissions: **280K+**   Points: **4**

Given two sorted arrays **a[]** and **b[]** of size **n** and **m** respectively, the task is to merge them in sorted order without using any **extra space**. Modify **a[]** so that it contains the first **n** elements and modify **b[]** so that it contains the last **m** elements.

Examples:

Input: a[] = [2, 4, 7, 10], b[] = [2, 3]

Output:

2 2 3 4

7 10

Explanation: After merging the two non-decreasing arrays, we get, 2 2 3 4 7 10

Input: a[] = [1, 5, 9, 10, 15, 20], b[] = [2, 3, 8, 13]

Output:

1 2 3 5 8 9

10 13 15 20

Explanation: After merging two sorted arrays we get 1 2 3 5 8 9 10

Java (1.8)   Average Time: 20m   Start Timer

```java
// } Driver Code Ends
class Solution {
    public void mergeArrays(int[] a, int[] b) {
        for (int i = b.length - 1; i >= 0; i--) {
            if (a[a.length - 1] > b[i]) {
                int last = a[a.length - 1];
                int j = a.length - 2;
                while (j >= 0 && a[j] > b[i]) {
                    a[j + 1] = a[j];
                    j--;
                }
                a[j + 1] = b[i];
                b[i] = last;
            }
        }
    }
}
```

Custom Input   Compile & Run   Submit