

2) (10 pts) ALG (Sorting)

Consider tracing through a Merge Sort of the array below. In the process of the code running, 10 merge operations occur. Assume that when a subarray of odd size gets split into two arrays for recursive calls, the left array is smaller than the right. (So, when the very first recursive call occurs, it will call the subarray storing the five leftmost elements.) **Show the contents of the whole array RIGHT AFTER each of the 10 merge operations occurs.** Please show your result in the order that the Merge operations occur. Note: Please think carefully about the actual order each Merge operation occurs. **PLEASE FILL IN ALL SLOTS EVEN IF THEY DON'T CHANGE BETWEEN ITERATIONS!!!** (1 pt is awarded for every row that is 100% perfect, plus one bonus point for getting all of the rows.)

Index	0	1	2	3	4	5	6	7	8	9	10
Orig	13	18	19	11	2	7	4	15	6	12	1
1 st Merge											
2 nd Merge											
3 rd Merge											
4 th Merge											
5 th Merge											
6 th Merge											
7 th Merge											
8 th Merge											
9 th Merge											
10 th Merge	1	2	4	6	7	11	12	13	15	18	19