

8. Apply the algorithm (in 7) to the array in 3 and show the recursive tree (15pts)

3. Show the stack trace on applying your algorithm (in 1) the following array (10pts)

77 | 8 | 3 | 9 | 2 | 7 | 1

1 Sort(arr, 0,7)

Return [1,2,3,7,8,9,77]

2 Sort(arr,0,3)

Returns [3,8,77]

7 Sort(arr, 3,4)

return [1,2,7,9]

3 Sort(Arr,0,1)

Returns [77]

4 Sort(arr,1,2)

returns[3,8]

8 Sort(arr,3,2)

return [2,9]

11 Sort(arr,5,2)

return [1,7]

5 Sort(arr,1,1)

Returns [8]

6 Sort(arr,2,1)

Returns [3]

9 Sort(arr,3,1)

Return [9]

10 Sort(4,1)

Return[2]

12 Sort(arr,5,1)

return [7]

13 Sort(6,1)

Return[1]