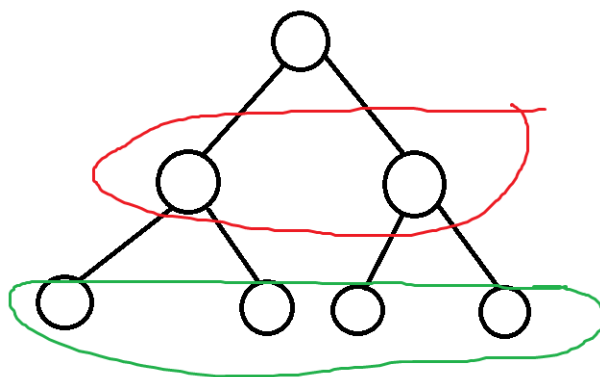**Ex 2.2.4:** What happens to merge function if unsorted array? Sort 2 halves, then merge together.(MergeSort)

Solution:
Worst case is if the subarray is sorted. Global max of one greater than global max of another.

- For example, array [1,3,5] AND [2,4,6]

- Comparisons go 1 by 1(check top and then bottom, increment top index pointer, then do same process, and increment bottom index pointer until hit the end of both arrays).

- So nearly $2n$ comparisons.

- If elements of 1 subarray strictly smaller than min of next, then probably take n-compares.

2n compares for each
node(check left and right childs)