MERGE SORT ALGORITHM

It divides input array in two halves, calls itself for the two halves and then merges the two sorted halves. **The merge() function** is used for merging two halves. The merge(arr, l, m, r) is key process that assumes that arr[l..m] and arr[m+1..r] are sorted and merges the two sorted sub-arrays into one.

ALGORITHM CONTINUED

MergeSort(arr[], l, r)

If r > l

   1. Find the middle point to divide the array into two halves:

      middle m = (l+r)/2

   2. Call mergeSort for first half:

      Call mergeSort(arr, l, m)

   3. Call mergeSort for second half:

      Call mergeSort(arr, m+1, r)

   4. Merge the two halves sorted in step 2 and 3:

      Call merge(arr, l, m, r)