CSC6013 - Worksheet for Week 7

Array Sum

1. Trace the recursive array sum algorithm for the following arrays. Show to each recursive call the input array, the returned value, and the number of sums executed. At the end of the trace, present the total number of sums executed (the total of sums of all recursive calls.
   1. **A screenshot of a computer code

      Description automatically generatedA = [38, 21, 39, 60, -1, 10, 81, 23]**
   2. **A white background with blue text

      Description automatically generatedB = [2, 97, 5, 88, 9, 72, 12, 64, 17, 56, 21]**
   3. **A white background with blue text

      Description automatically generatedC = [100, 33, 22, 213, 65, 29, 153, 199, 47, 181, 85]**

Mergesort

1. Trace the Mergesort algorithm for the following arrays. Show to each recursive call the two input and output arrays.
   1. **A close-up of a computer code

      Description automatically generatedA = [38, 21, 39, 60, -1, 10, 81, 23]**
   2. **A close-up of a white background

      Description automatically generatedB = [2, 97, 5, 88, 9, 72, 12, 64, 17, 56, 21]**
   3. **A close-up of a white background

      Description automatically generatedC = [100, 33, 22, 213, 65, 29, 153, 199, 47, 181, 85]**