Algorithms, Merge Sort Recursion Tree - Thursday, August 27, 2020

1. How many sub-problems are there at any given level (use L in your equation)? Note: root is Level 0, the second level is Level 1, and leaves are at Level log₂(n). For Merge Sort, “sub-problem” refers to a call to the Merge function.

2. How many elements are there for a given sub-problem found in level L? Here, elements refers to the numbers in the subarray passed to the Merge function.

3. How much work is performed at a given level?
   Note: we found that the cost of the Merge function was 21m.

4. What is the total computational cost of the MergeSort function?