Please complete the following from the CLRS book:

- 2.3-3

- 2.3-4

- 2.3-6

- 2-4

- 3-3

- 3-4

- 4.1-3

Additionally, please solve the following problem:

0.1   Problem 1

You are calling merge sort on an array of 8 elements, i.e., you are calling merge-sort$(A, 1, 8)$. Write down the state of the operating system stack after each recursive call.