

1. List the members of your group below:

2. Depict the *red-black tree* resulting from the sequential insertion of

$1, 2, 3, \dots, 10$

into an empty tree, using *bottom-up insertion*. All intermediate trees need not be depicted, but it is advisable to depict at least a few. In this question, and those following, use the exact algorithms described in the textbook.¹

¹Mark Allen Weiss, *Data Structures and Problem Solving Using Java*, 3rd edition (Addison-Wesley, 2006), §19.5.

[additional space for answering the earlier question]

3. Repeat Question 2 with *top-down insertion*.

4. Delete each of the following keys (in given order) from the final tree of Question 3. Depict the state of the tree before and after each transformation required by the deletions.

9, 3, 1