This assignment follows the previous one with some changes. You are to write a C++ program to perform the following operations:

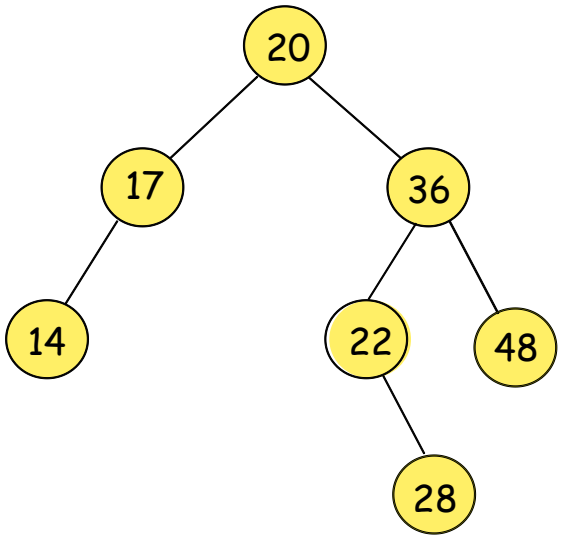
1. It first prompts the user to input a sequence of integers to construct a **binary search tree**, in which each node has an additional field ***leftSize***. The definition of ***leftSize*** is the same as given in the textbook.
2. After the BST is constructed, allow a user to perform the following operations:

- **Insertions** and **deletions** as we did in the previous assignment but remember to update the ***leftsize*** field
- Write a function called ***avg*(int *l*, int *u*)** which returns the average of the elements that are ranked *l*th to *u*th. "Ranking" is defined the same way as we did in the previous assignment

Note that in this assignment, you do not need to consider exceptional situations, such as the argument ***u*** in ***avg*()** is bigger than ***n***, the number of elements in the tree.

Due date: Dec. 25, 2017.

Example for ***avg*()**:



***avg*(2, 4)** should return (**17**+**20**+**22**)/3=19.