Lab 6 – C++ AVL Tree & Multiway Trees

Problem 1

Write a program inserting one given node into AVL Tree.

Problem 2

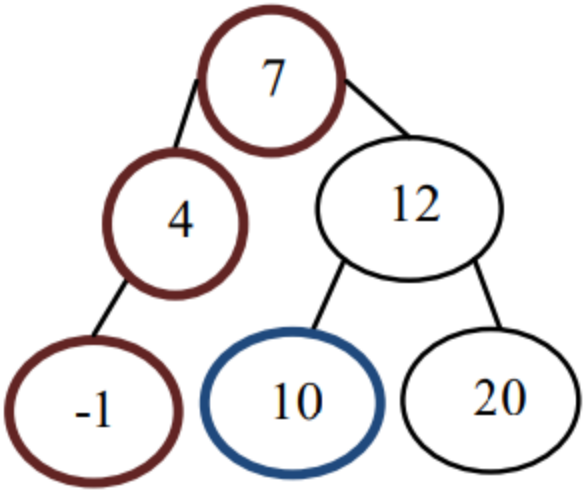
Write a program removing one given node from AVL Tree.

Problem 3

Write a program that reads a list of names and telephone numbers from a text file and inserts them into an AVL tree. Once the tree has been built, present the user with a menu that allows him or her to search the list for a specified name, insert a new name, delete an existing name, or print the entire phone list. At the end of the job, write the data in the list back to the file. Test your program with at least ten names.

Problem 4

T is a BST containing integer number values. For a given real value x, SumPaths(T,x) is the number of paths in T or any subtree of T from the root down to some node for which the sum of path node keys is x. Write an algorithm which calculates SumPaths(T,x).



Sumpaths(T,10)=2