

```

23 2
24 3
25 Output2:
26 3 5 7 9 11
27 The queue is full.
28 7 9 11

```

9. Implement a binary search tree with linked lists

Please implement a binary search tree with linked lists and traversal with in-order, post-order, pre-order. The input consists of a sequence of numbers. You must build a binary search tree according to the input order. The output includes three lines of the results: (1) the in-order traversal, (2) the post-order traversal, and (3) the pre-order traversal.

Note: You must use linked lists; otherwise, no points will be given.

Test Case

Please test your program with Input, and then check the answers with Output.

Listing 9 : Implement a binary search tree with linked list

```

1 Input :
2 4 6 8 9 12 5 7
3
4 Output :
5 4 5 6 7 8 9 12
6 5 7 12 9 8 6 4
7 4 6 5 8 7 9 12

```

10. Insert and delete a number of binary search tree

Implement a binary search tree with insert(x) and delete(x) functions using an array. You must build a binary search tree according to the input order. The input consists of a sequence of numbers in the first line. The insert/delete function and the number to be insert/deleted are shown in the remaining lines. **For the delete operation, you must use the node with the largest key from the left sub-tree to replace the deleted node.** Finally, print out the entire tree in **level order** from the top to the down. If there are more than two numbers in the same level, you should print out the numbers from the **left to the right**