Consider a hash table of size 7. For each of the insertion show the step-by-step contents of the hash table. Count the number of collisions in each case.
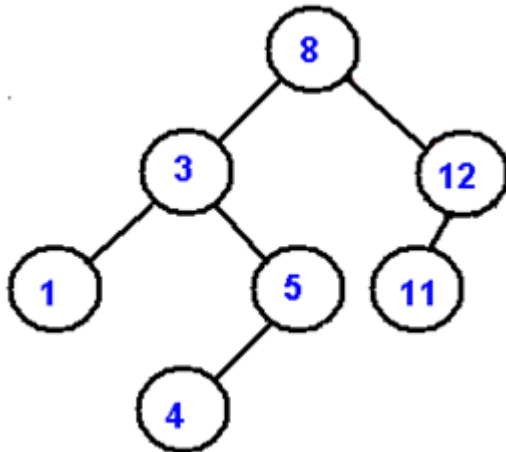
Insert 14, 8, 21, 2, 6, 13 into hash table, use Linear probing.

Insert 14, 8, 21, 2, 28 into hash table, use Quadratic probing.

Insert 14, 8, 21, 2, 7, 11 into hash table, use Double hashing.

Draw a hash table with chaining. Consider a hash table of size 9. Use the hash function "k%9" to insert the keys 5, 29, 20, 0, and 18 into your table.

Consider following BST

Draw the resulting BST after deleting 8.

Beginning with an empty binary search tree, what binary search tree is formed when you insert the following values in the order given?

   a) W,T,N,J,E,B,A
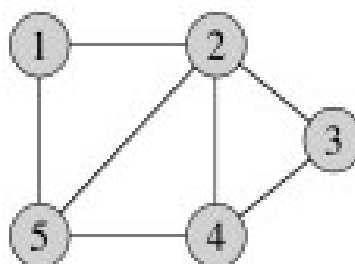
   b) W,T,N,A,B,E,J

   c) A,B,W,J,N,T,E

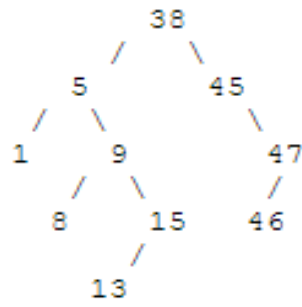Given a sequence of numbers:

11, 6, 19, 4, 13, 5, 17, 43, 16, 31

Draw a binary min heap by inserting the above numbers.

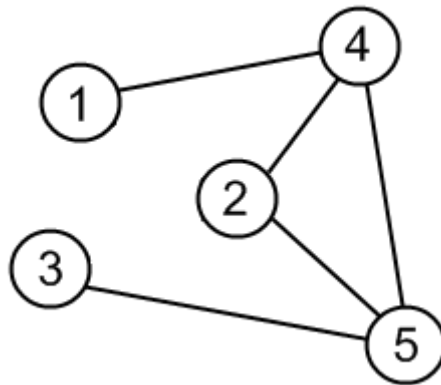Show the binary heap that can be resulted after the removal of 19.

Draw both the adjacency matrix and adjacency list representations of the following graph:

Perform the preorder, inorder, and postorder traversals of the following binary search tree:

```
              38
           /      \
         5          45
       /   \          \
      1     9          47
          /   \        /
         8     15    46
              /
            13
```

Traverse a graph shown below, using DFS. Start from a vertex with number 1.

Traverse a graph shown below, using BFS. Start from a vertex with number 1.