1. For each of the following trees, show the order that the nodes would be visited in a PREORDER, INORDER, and POSTORDER traversal:

(a) Tree 1:

```
   A
  / \  
B   C
 /   /  
D   F  E
```

(b) Tree 2:

```
   A
  / 
B   C
 /   
D   E
    F
```

(c) Tree 3:

```
   A
  / 
B  E
 / 
C  F
```

2. Draw all possible trees with the following preorder traversal:

```
A  B  C
```

3. How many different trees have the following preorder traversal? You don’t need to give all of the trees, just count them.

```
A  B  C  D
```

4. The following elements are inserted (in this order) into a heap: 6 4 8 3 2 7 5 1

(a) Show the resulting heap
(b) Show the heap after 3 removemin operations