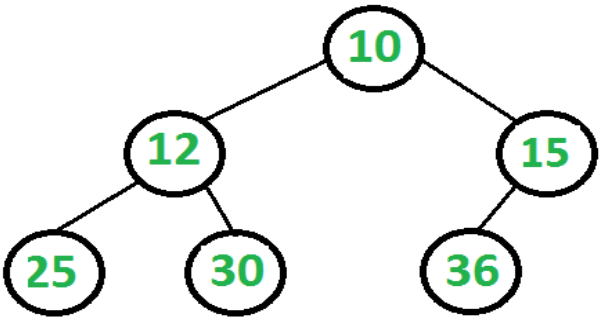
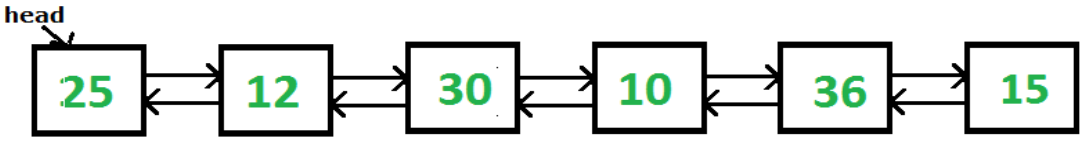
Binary Tree to DLL

Given a Binary Tree (BT), convert it to a Doubly Linked List (DLL) in place. The left and right pointers in nodes will be used as previous and next pointers respectively in converted DLL. The **order of nodes** in DLL must be the same as the order of the given Binary Tree. The first node of **Inorder traversal** (leftmost node in BT) must be the head node of the DLL.

Note: h is the tree's height, and this space is used implicitly for the recursion stack.



The above tree should be in-place converted to following Doubly Linked List(DLL).



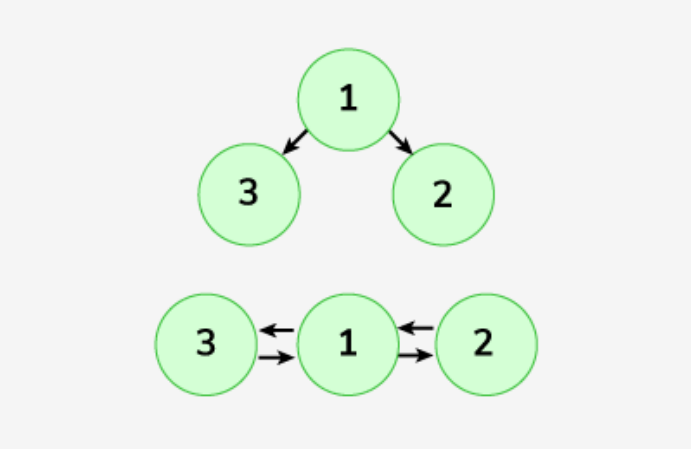
Examples:

Input:

```
      1
    /   \
   3     2
```

Output:

```
3 1 2
2 1 3
```



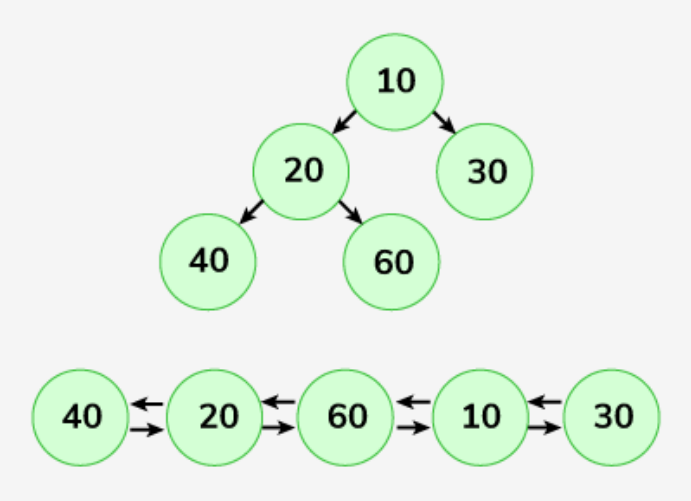
Explanation: DLL would be 3<=>1<=>2

Input:

```
        10
       /   \
      20   30
    /   \
  40    60
```

Output:

```
40 20 60 10 30
30 10 60 20 40
```



Explanation: DLL would be 40<=>20<=>60<=>10<=>30.

Expected Time Complexity: O(no. of nodes)

Expected Space Complexity: O(height of the tree)

Constraints:

$1 \leq$ Number of nodes $\leq 10^5$

$0 \leq$ Data of a node $\leq 10^5$