**Assignment Questions 23**

Question-1:

Given preorder of a binary tree, calculate its [**depth(or height)**](https://www.geeksforgeeks.org/write-a-c-program-to-find-the-maximum-depth-or-height-of-a-tree/) [starting from depth 0]. The preorder is given as a string with two possible characters.

1. ‘l’ denotes the leaf
2. ‘n’ denotes internal node

The given tree can be seen as a full binary tree where every node has 0 or two children. The two children of a node can ‘n’ or ‘l’ or mix of both.

**Examples :**

Input : nlnll Output : 2 Explanation :

Input : nlnnlll Output : 3

Question-2:

Given a Binary tree, the task is to print the **left view** of the Binary Tree. The left view of a Binary Tree is a set of leftmost nodes for every level.

**Examples:**

***Input:***

4

/   \\

5     2

/   \\

3     1

/  \\

6    7

***Output:****4 5 3 6*

**Explanation:**

***Input:***

1

/   \\

2       3

\\

4

\\

5

\\

6

**Output:** 1 2 4 5 6

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<aside> 💡 Question-3:

Given a Binary Tree, print the Right view of it.

The right view of a Binary Tree is a set of nodes visible when the tree is visited from the Right side.

**Examples:**

**Input:**

1

/     \\

2        3

/   \       /  \

4     5   6    7

\\

8

**Output**:

Right view of the tree is 1 3 7 8

**Input:**

1

/

8

/

7

**Output**:

Right view of the tree is 1 8 7

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<aside> 💡 Question-4:

Given a Binary Tree, The task is to print the **bottom view** from left to right. A node **x** is there in output if x is the bottommost node at its horizontal distance. The horizontal distance of the left child of a node x is equal to a horizontal distance of x minus 1, and that of a right child is the horizontal distance of x plus 1.

**Examples:**

**Input:**

20

/     \\

8         22

/      \\         \\

5         3        25

/    \\

10       14

**Output:** 5, 10, 3, 14, 25.

**Input:**

20

/     \\

8         22

/      \\      /   \\

5         3   4     25

/    \\

10       14

**Output:**

5 10 4 14 25.

**Explanation:**

If there are multiple bottom-most nodes for a horizontal distance from the root, then print the later one in the level traversal.

**3 and 4** are both the bottom-most nodes at a horizontal distance of 0, we need to print 4.

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