OUTPUT

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Lab 6

Case 1: (3 + ((5+9) *2))

```
Enter the expression:(3 + ((5+9) *2))

The inorder traversal of the given expression tree is:3 + 5 + 9 * 2
The preorder traversal of the given expression tree is:+ 3 5 + 9 * 2
The postorder traversal of the given expression tree is:3 5 + 9 * 2 +
The value associated with root is 31
The expression tree produced is:
********** Horizontal Expression Tree*******************

                3
            +
                        5
                    +
                        9
                *
                    2
************************************************************
```

Th + is head node and it shows the horizontal tree.

Case 2: ((3 + 2) -6) *2

```
Enter the expression:((3 + 2) -6) *2

The inorder traversal of the given expression tree is:3 + 2 - 6 * 2
The preorder traversal of the given expression tree is:* 3 + 2 - 6 2
The postorder traversal of the given expression tree is:3 + 2 - 6 2 *
The value associated with root is -2
The expression tree produced is:
********** Horizontal Expression Tree*********************

                              3
                         +
                              2
                    -
                              6
               *
                    2
************************************************************
```

Case 3: 5 + 6

```
Enter the expression:5 + 6

The inorder traversal of the given expression tree is:5 + 6
The preorder traversal of the given expression tree is:+ 5 6
The postorder traversal of the given expression tree is:5 6 +
The value associated with root is 11
The expression tree produced is:
********** Horizontal Expression Tree*********************

                    5
               +
                    6
************************************************************
```

Case 4: Invalid input

```
Enter the expression:56 )))) 76 990 _((
Expression can only contains digits, operators(%,^,+,-, /, *) and parenthesis().
```