

Answer on Question #60485, Programming & Computer Science / C++

Question:

below shows the postfix expression. Draw a binary tree of $abc * + de * f + g +$ and find the following

i. infix expression

ii. prefix expression

From the traversal of preorder, inorder and postorder as above write down the c++ statement for each

i. preorder function

ii. inorder function

Solution:

i. Infix: $(a + (b * c)) + ((d * e) + f) + g$

ii. Prefix: $+ a * b c + + * d e f g$

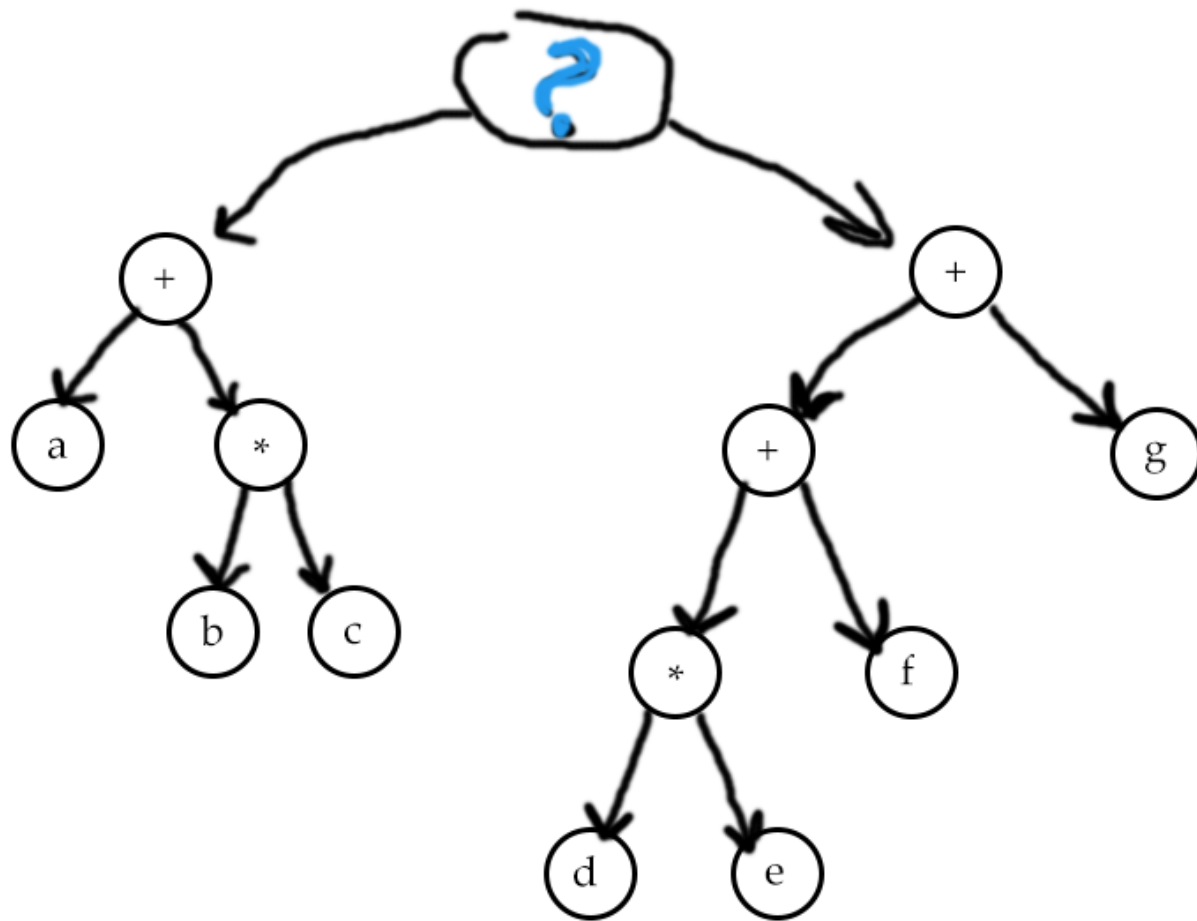


Figure 1. Expression tree

i.predorder function:

```
void Preorder(tree *root) {  
    if(root == null) return;  
    cout << root->value << " ";  
    Preorder(root->left);  
    Preorder(root->right);  
}
```

ii.inorder function:

```
void Inorder(tree *root) {  
    if(root == null) return;  
    Inorder(root->left);  
    cout << root->value << " ";  
    Inorder(root->right);  
}
```

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