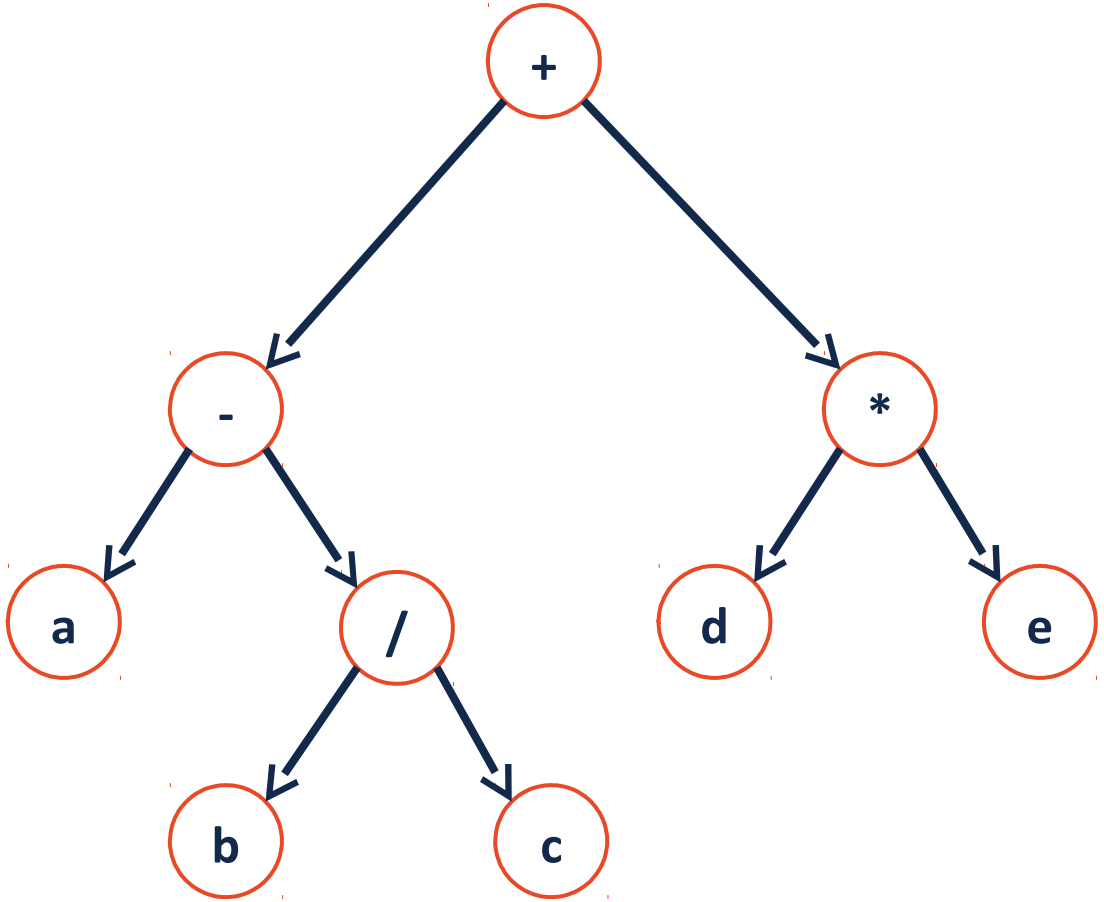
CS 400

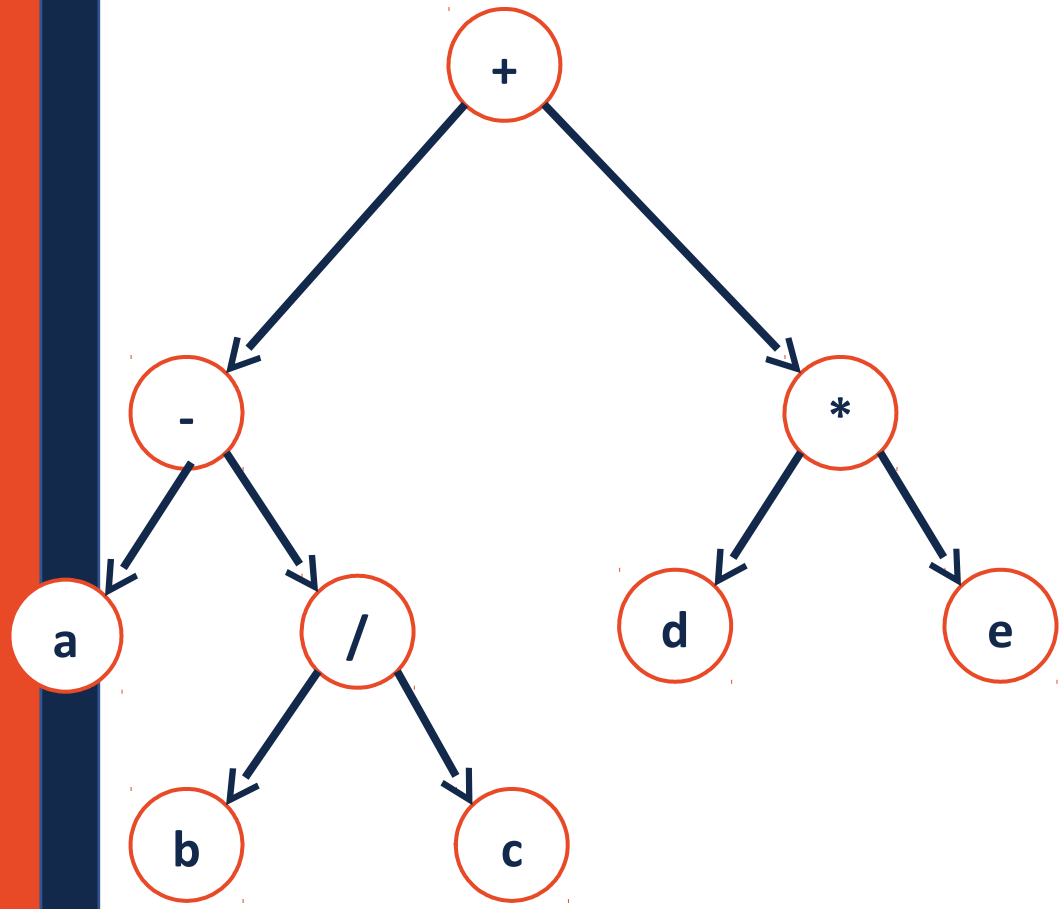
Tree Traversal

EXTRA-Tree-Traversal

Traversals

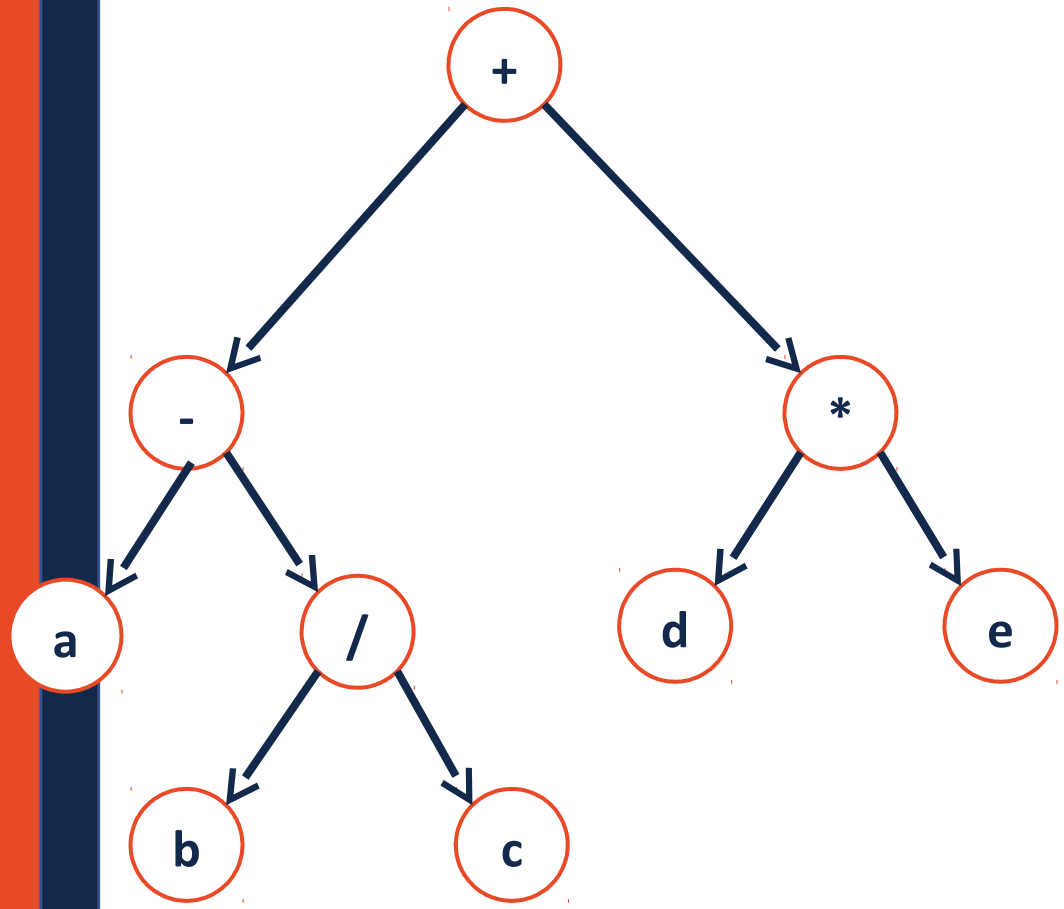


Traversals



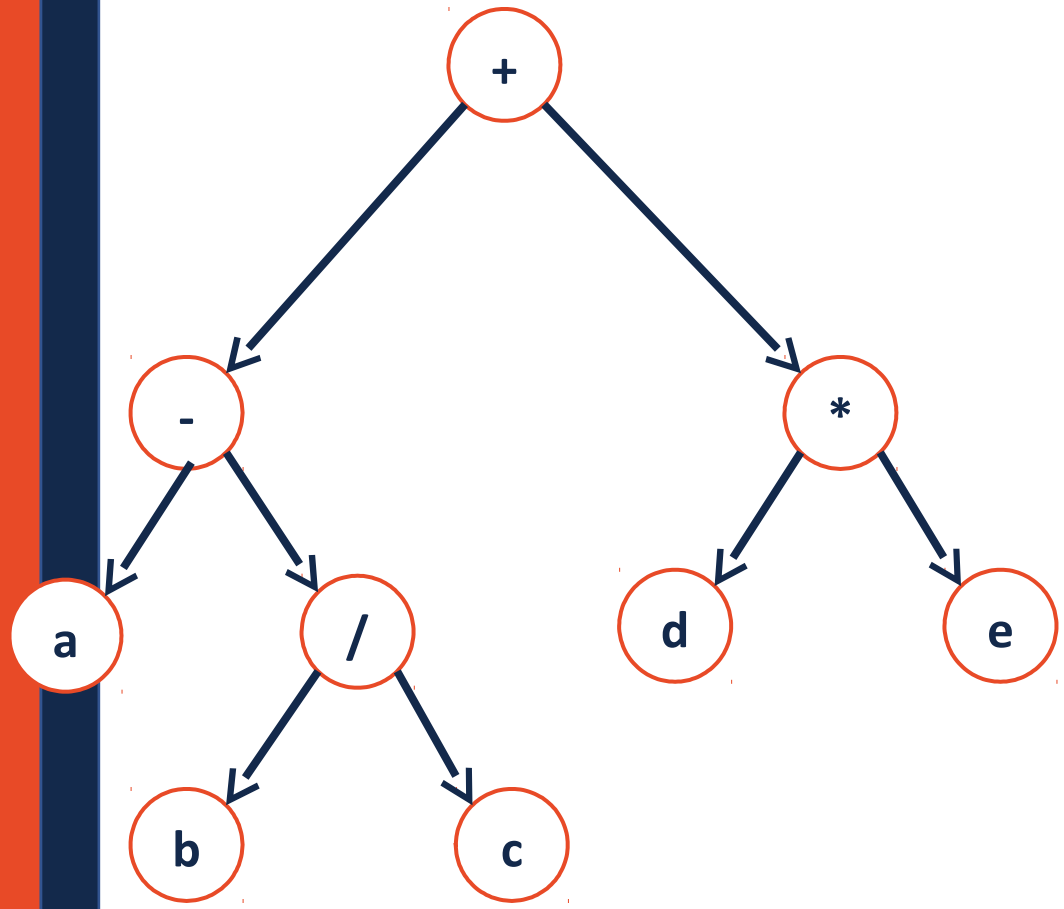

```
49  template<class T>
50  void BinaryTree<T>::Pre_Order(TreeNode * cur)
51  {
        if( cur != NULL) {
            shout(cur);
        preOrder (cur->left);
        preOrder(cur->right);
            }
52
53
54
55
56
57
58  }
```

Traversals




```
49  template<class T>
50  void BinaryTree<T>::_in_Order(TreeNode * cur) {
51     if (cur != NULL) {
52        ____________________________;
53        _in_Order(cur->left);
54        ____________Shout (cur)_____;
55        _in_Order(cur->right);
56        ____________________________;
57     }
58  }
```

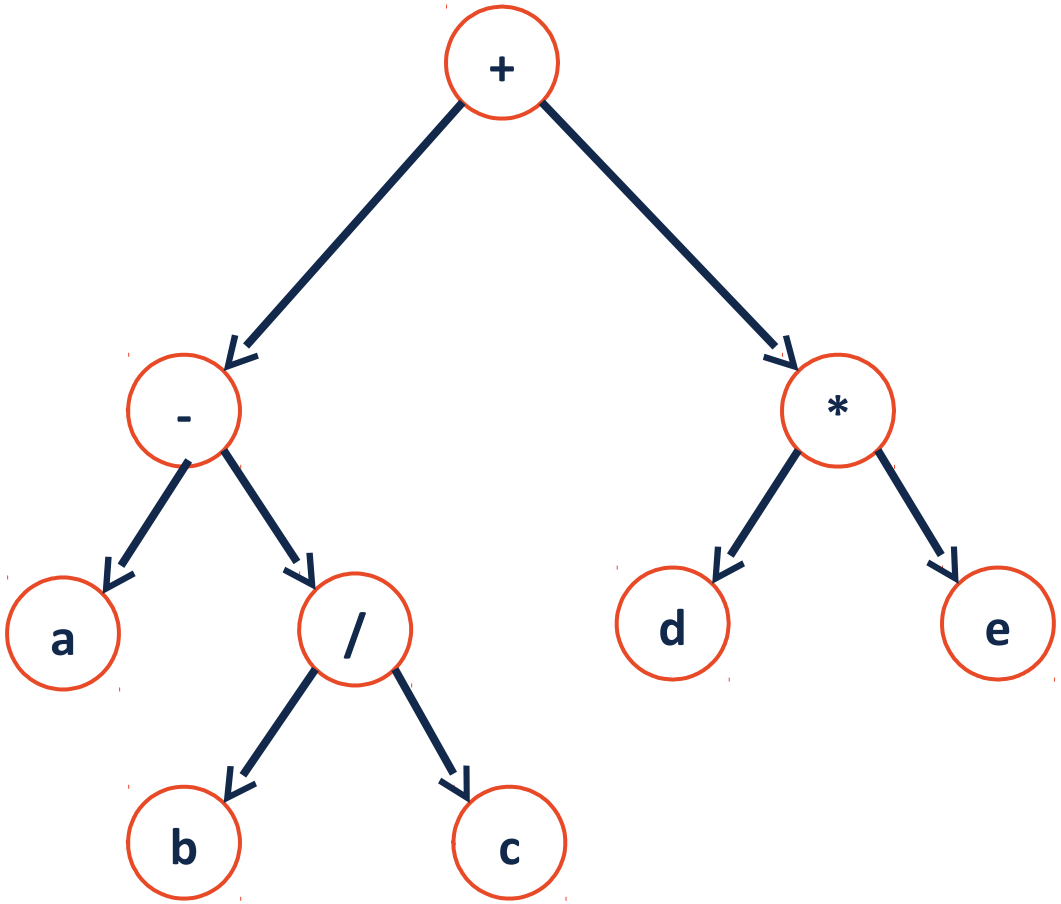
Traversals



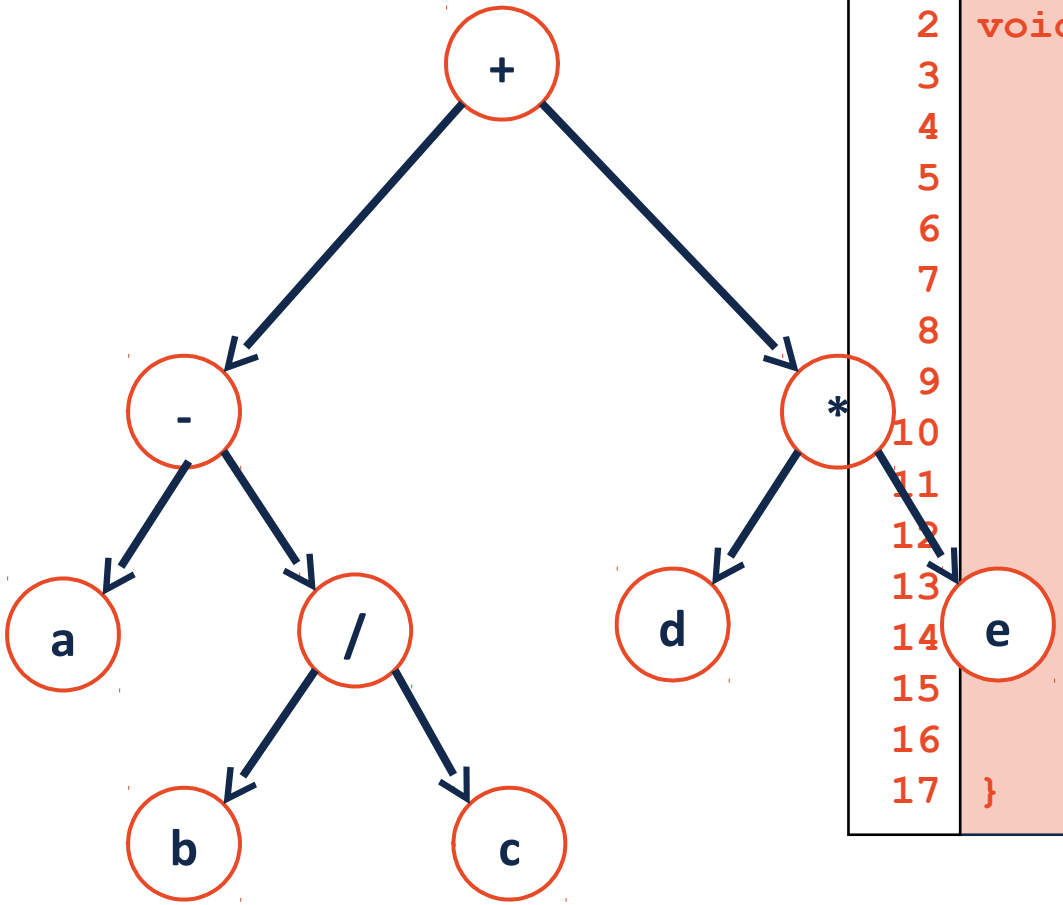
Left, right, shout

```
49  template<class T>
50  void BinaryTree<T>::postOrder(TreeNode * cur) {
51     if (cur != NULL) {
52        _____________________________;
53        postOrder(cur->left);
54        _____________________________;
55        postOrder(cur->right);
56        shout(cur)_____________________;
57     }
58  }
```

A Different Type of Traversal



A Different Type of Traversal




```
1  template<class T>
2  void BinaryTree<T>::levelOrder(TreeNode * root) {
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17 }
```

Traversal vs. Search

Traversal

Search