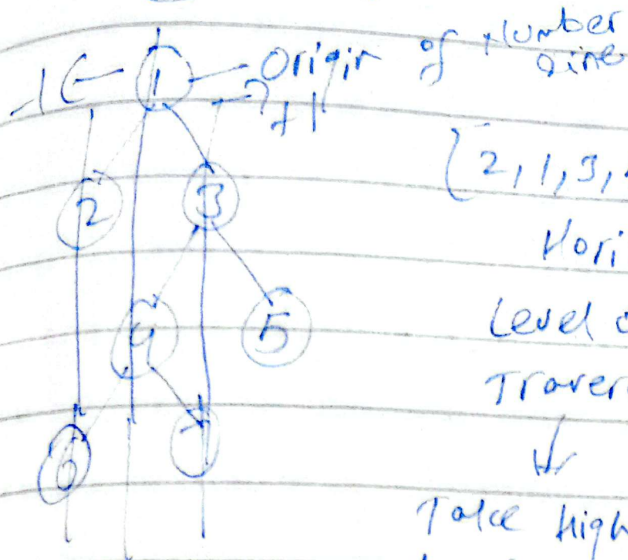


Top View of a Binary Tree



[2, 1, 3, 5]

Horizontal Distance

Level order Traversal

Node(d)

left (d-1) right (d+1)

Take high level number from the same line.

[(1,0) | 2,-1 | 3,+1 | 4,-2 | 5,+2]

HD	node	map
0	1	
-1	2	
+1	3	
+2	5	

Pseudocode

```
void TopView(Node* root) {
    queue<pair<Node*, int>> q;
    map<int, int> m;
    q.push(root, 0);
    while (q.size() > 0) {
        Node* curr = q.front().first;
        int currHD = q.front().second;
        q.pop();
        If (m.find(currHD) == m.end())
            m[currHD] = curr->data;
        If (curr->left != NULL)
            q.push({curr->left, currHD-1});
    }
}
```

```
If (curr->right != NULL) {
    q.push({curr->right, currHD+1});
}
for (auto it : m) {
    cout << it.second << " ";
}
cout << endl;
```