

```
class Tree {  
    int diameter = 0;  
    public int diameterOfT(TreeNode root) {  
        recurse(root);  
        return diameter;  
    }  
  
    public int recurse(TreeNode node) {  
        if (node == null)  
            return 0;  
        int l = recurse(node.left);  
        int r = recurse(node.right);  
        diameter = Math.max(diameter, l+r);  
        return 1 + Math.max(l, r);  
    }  
}
```