

1)

```
leaves :: Tree a -> Int
```

```
-- Base case if it is leaf return one, otherwise recurse of left and right subtree
```

```
leaves (Leaf a) = 1
```

```
leaves (Node lhs rhs) = leaves (lhs) + leaves (rhs)
```

2)

```
balanced :: Tree a -> Bool
```

```
-- if the tree is a leaf then return true
```

```
balanced (Leaf a) = True
```

```
-- otherwise check if the amount of leaves in the lhs is the same as the leaves in  
rhs
```

```
balanced (Node lhs rhs) = leaves lhs == leaves rhs
```