

```
-- Solutions to Lab 12
--
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module LabTree
where

data Tree a = Leaf
            | Node a (Tree a) (Tree a)
            deriving (Show)

-- depthTree:: add 1 to the maximum depth of
-- the left and the right subtree
depthTree :: Tree a -> Int
depthTree Leaf = 0
depthTree (Node x t1 t2) =
    1 + max (depthTree t1) (depthTree t2)

-- just swaps left and right subtree in each step
reverseTree :: Tree a -> Tree a
reverseTree Leaf = Leaf
reverseTree (Node x t1 t2) =
    Node x (reverseTree t2) (reverseTree t1)
```