Universität Erlangen-Nürnberg Department of Computer Science 7 Dr.-Ing. U. Klehmet Introduction to Data Structures and Algorithms

## Exercise sheet 8

## Exercise 18:

Write pseudocode for an O(n)-time *recursive* procedure that, given an n-node binary tree, prints out the key of each node in the tree.

## Exercise 19:

Write pseudocode for an O(n)-time *nonrecursive* procedure that, given an n-node binary tree, prints out the key of each node in the tree in the same order as in Exercise 18. Use a stack as an auxiliary data structure.

## Exercise 25:

For the set of keys  $\{0, 5, 8, 18, 22, 25\}$  draw binary search trees of height 2, 3, 4, and 5.