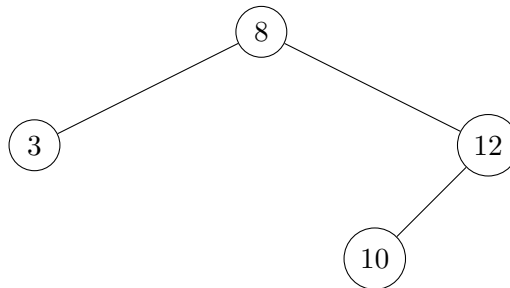


Algorithms and Data Structures Summer Term 2019 Exercise Sheet 7

Exercise 1: Binary Search Trees I

Consider the following binary search tree



1. Give all sequences of `insert(key)` operations that generate the tree.
2. Draw the tree after the following sequence of operations: `insert(6)`, `insert(5)`, `remove(3)`.

Exercise 2: Binary Search Trees II

Write an algorithm that takes as input a node of a binary search tree and outputs its successor in the tree (i.e., the node with the next larger key). What is the runtime of the algorithm?