

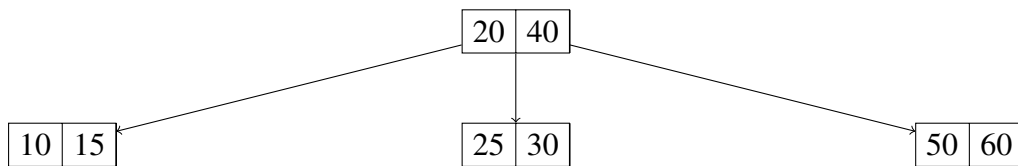
Exercise for the lecture
Distributed Storage and Computer Forensic

Winter 2011/12

Sheet 4

EXERCISE 4:

Consider the following (2, 4)-B-Tree.



1. Insert the elements 80, 75, 65 and 70.
2. Delete 10, 15 and 30.

Trickquestion Consider a B-tree consisting of a root and \sqrt{n} children each containing \sqrt{n} elements. A binary search for an element would then cost $O(\log(\sqrt{n}))$ (2 binary searches in \sqrt{n} elements). From other classes you know that binary search is bounded by $\Omega(\log n)$! How is that possible?