

COSC 201 ~ 11/02/2011

△ Sets

↳ basically a List, but with no duplicates

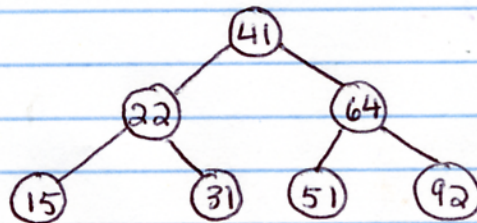
- Main implementations

① SortedSet (interface)

↳ maintains natural sorted order
• needs comparator or comparable

② TreeSet ~ implementation of SortedSet

↳ balanced binary tree
• $O(\log n)$ add, remove, contains
• keeping the tree balanced is the costly part



③ HashSet

↳ not ordered in any way
↳ $O(1)$ for add, remove, and contain (!)
• hashCode - assigns the element a unique value ~ can use that value to retrieve the element
• Considerations for HashSet

① Any Object added to a HashSet must have properly overridden equals() in order to ^{prevent} duplicates

② Any Object added to a HashSet should override hashCode();