• **Reading:** Chapter 3.1
  
  • This note is supplementary to the slides. Please read them both.

1 Remarks

It is very useful to practice formulating formal proofs of the following two statements regarding the removal in binary search tree.

- Let \( y \) be the first internal node that follows the target \( w \) in the inorder traversal. Prove that \( y \) must have an external left-child.

- Prove that replacing \( w \) by \( y \) from the above maintains the binary search tree property.

\footnote{Contents will appear in homework and exams.}