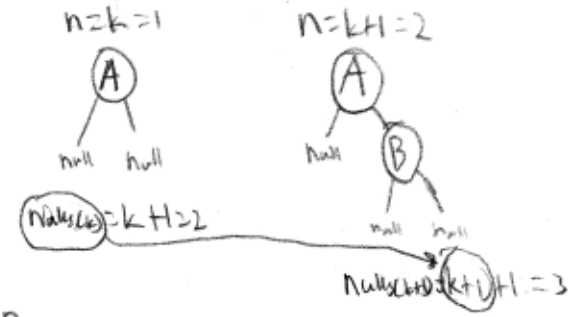
In a binary tree

4.4) Base Case: N=1

1 node, 2 null child links $\overset{\checkmark}{=} N+1$ null child links

Inductive Hyp: Assume Thm holds for all $1 \le n \le k$



By the inductive Hyp, the right side becomes, nulls(k)+1

$$\text{nulls}(k+1) \overset{?}{=} \text{nulls}(k)+1$$

$$3 \overset{?}{=} 2+1$$

$$3 \overset{\checkmark}{=} 3$$

QED