

- Base case  $\leftarrow$  Big Step Tree

$a=0$  (end case)

- I.H terminates for all  $a \geq 0 \quad b \geq 0$ .

- Inductive Case (for  $a$ )

$\text{mul} \quad a \quad b$

证明过程

证 Base Case:

$$\text{App} \frac{\text{mul} = \text{fun } a \text{ } b \Rightarrow \text{match } \dots \quad \text{match } 0 \text{ with } 0 \dots}{\text{mul } 0 \quad b \Rightarrow 0} \quad \begin{array}{l} \text{I mul} \\ \text{match } 0 \text{ with } 0 \dots \end{array}$$

$$\text{I mul} = \frac{\text{mul} = \text{fun } a \text{ } b \Rightarrow \text{match } a \dots}{\text{mul} \Rightarrow \text{I mul}}$$