

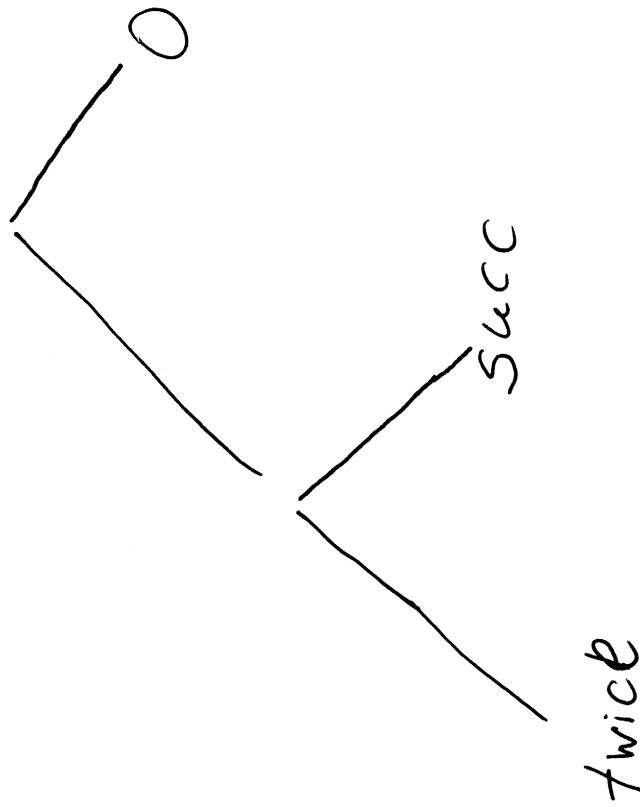
Typinferenz - Regel:

$$\frac{f :: A \rightarrow B \quad e :: A}{(f e) :: B}$$

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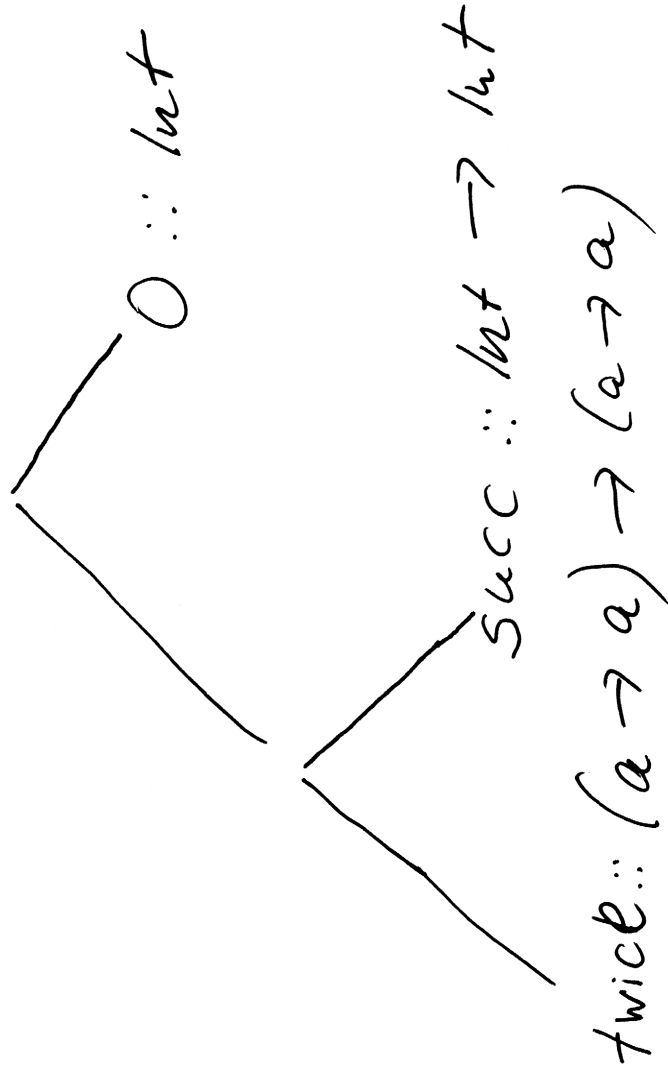
twice succ 0



Typinferenz - Regel:

$$\frac{f :: A \rightarrow B \quad e :: A}{(f e) :: B}$$

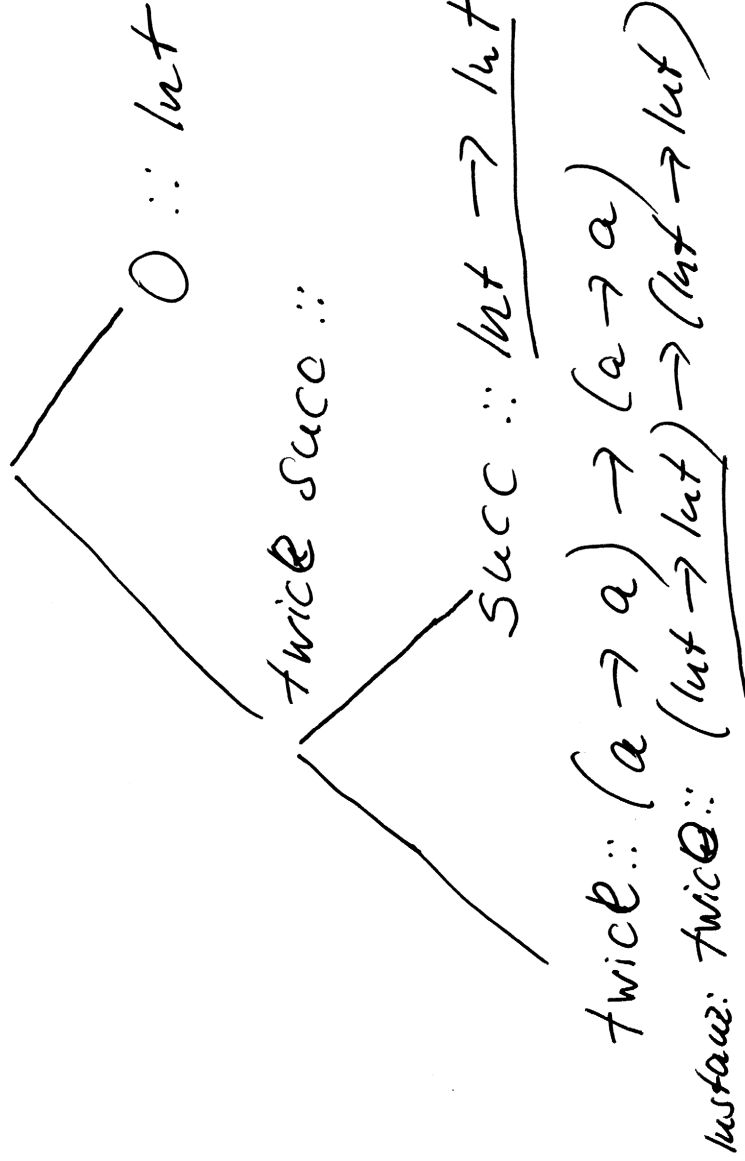
twice succ 0



Typinferenz - Regel:

$$\frac{f :: A \rightarrow B \quad e :: A}{(fe) :: B}$$

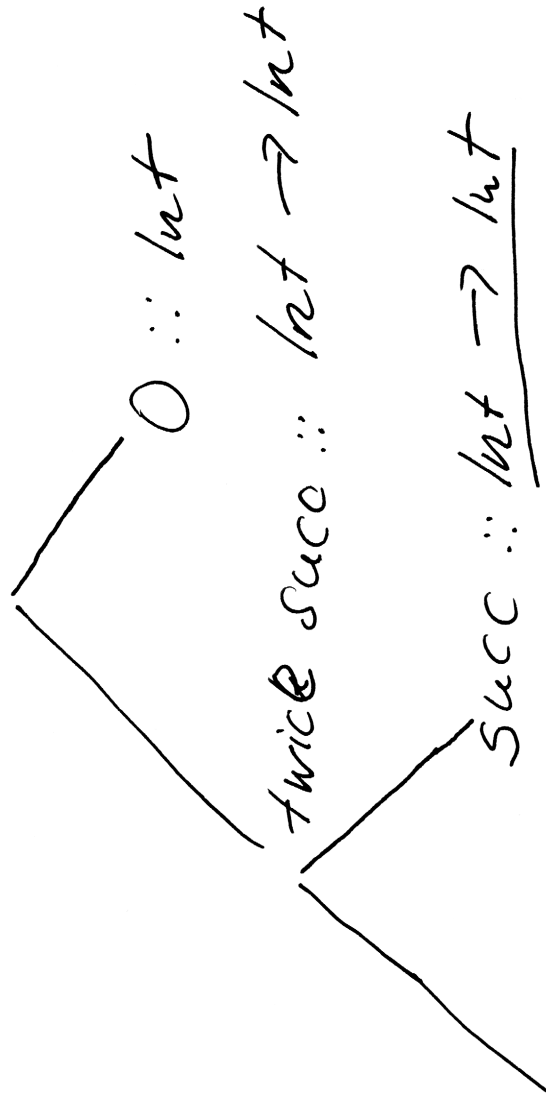
twice succ 0



Typinferenz - Regel:

$$\frac{f :: A \rightarrow B \quad e :: A}{(f e) :: B}$$

twice succ 0



twice :: (a → a) → (a → a)
 instance: twice @ :: (Int → Int) → (Int → Int)

Regel:

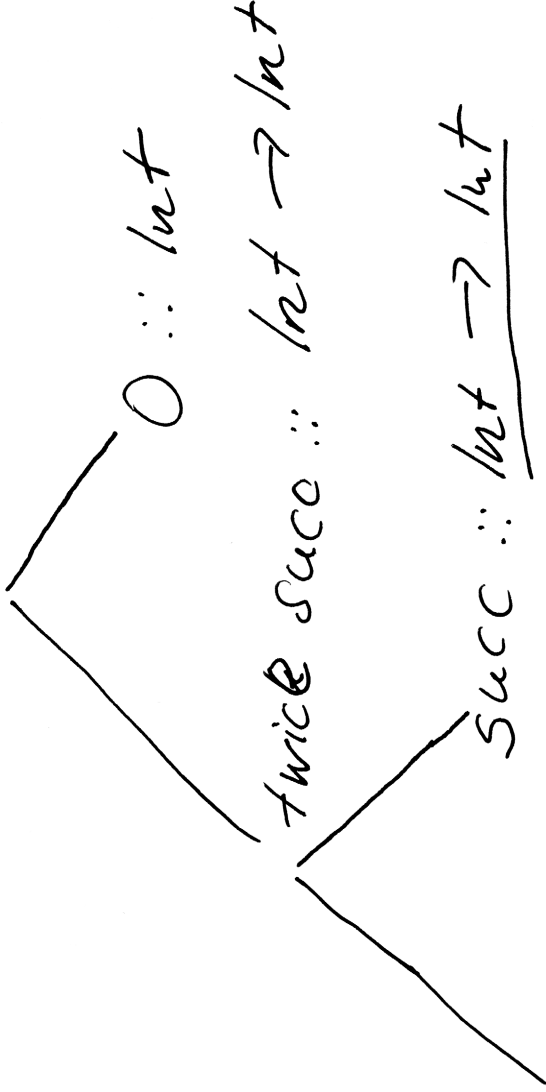
$$\frac{\begin{array}{c} f :: A \rightarrow B \\ \text{twice} :: (\text{Int} \rightarrow \text{Int}) \rightarrow \underbrace{(\text{Int} \rightarrow \text{Int})}_A \rightarrow \underbrace{(\text{Int} \rightarrow \text{Int})}_B \\ e :: \text{Int} \rightarrow \text{Int} \\ \text{succ} :: \text{Int} \rightarrow \text{Int} \end{array}}{\begin{array}{c} \text{twice succ} :: \text{Int} \rightarrow \text{Int} \\ f e \end{array}}$$

Typinferenz - Regel:

$$\frac{f :: A \rightarrow B \quad e :: A}{(f e) :: B}$$

twice succ 0

twice succ 0 :: Int



twice :: (a -> a) -> (a -> a)
 instance: twice 0 :: (Int -> Int) -> (Int -> Int)

$$\frac{\underbrace{f}_{\text{twice succ}} \quad \underbrace{e}_{\text{succ}} \quad \underbrace{A \rightarrow B}_{\text{Int} \rightarrow \text{Int}} \quad \underbrace{e :: A}_{0 :: \text{Int}}}{\text{twice succ } 0 :: \text{Int}}$$

Regel:

$$\frac{f :: A \rightarrow B \quad \underbrace{e :: \text{Int} \rightarrow \text{Int}}_{\text{succ}} \quad \underbrace{A \rightarrow B}_{\text{Int} \rightarrow \text{Int}} \quad \underbrace{e :: A}_{\text{Int} \rightarrow \text{Int}}}{\text{twice} :: (\text{Int} \rightarrow \text{Int}) \rightarrow (\text{Int} \rightarrow \text{Int})}$$

$$\frac{\text{twice succ} :: \text{Int} \rightarrow \text{Int} \quad \underbrace{\text{Int} \rightarrow \text{Int}}_B}{f e}$$