

FPE of  $n$ -word tree = 1

$$1 \text{ FPE} : H f 0 \circ H f 1 = H f (Succ 0)$$

$$2 : H f (Succ (H f (Succ 0)))$$

$$\dots = (H f \circ Succ)^n 0$$

$$\text{FPE of } n = (H f \circ Succ)^n 0$$

$$\text{FPE of } \omega = [(H f \circ Succ)^n 0]$$

$$\text{FPE} = f \mapsto n \mapsto (H f \circ Succ)^n 0$$