

Inference at * 2 1
of proof for Lemma fast-fib:

1. $\forall n, a, b:\mathbb{N}.$
 $\{m:\mathbb{N} \mid$
 $\forall k:\mathbb{N}.$
 $(a = \text{fib}(k))$
 $\Rightarrow ((k \leq 0) \Rightarrow (b = 0))$
 $\Rightarrow ((0 < k) \Rightarrow (b = \text{fib}(k - 1)))$
 $\Rightarrow (m = \text{fib}(n+k))\}$
 $\vdash \forall n:\mathbb{N}. \{m:\mathbb{N} \mid m = \text{fib}(n)\}$
 by UseWitness $\lambda n.f(n,1,0)$

1:

$\vdash (\lambda n.f(n,1,0)) \in (\forall n:\mathbb{N}. \{m:\mathbb{N} \mid m = \text{fib}(n)\})$