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

1. f :
   $\forall n$, a, b:$\mathbb{N}$.
   $\{m$:$\mathbb{N}$ |
    $\forall k$:$\mathbb{N}$.
    $(a = \text{fib}(k))$
    $\Rightarrow ((k \leq 0) \Rightarrow (b = 0))$
    $\Rightarrow ((0 < k) \Rightarrow (b = \text{fib}(k - 1)))$
    $\Rightarrow (m = \text{fib}(n+k))\}$
2. n : $\mathbb{N}$
3. v :
   $\{m$:$\mathbb{N}$ |
    $\forall k$:$\mathbb{N}$.
    $(1 = \text{fib}(k))$
    $\Rightarrow ((k \leq 0) \Rightarrow (0 = 0))$
    $\Rightarrow ((0 < k) \Rightarrow (0 = \text{fib}(k - 1)))$
    $\Rightarrow (m = \text{fib}(n+k))\}$
4. $f(n,1,0) = v$
$\vdash v = \text{fib}(n)$
  by D (-2)$\cdot$

  1:

    3. v : $\mathbb{N}$
    4. $\forall k$:$\mathbb{N}$.
       $(1 = \text{fib}(k))$
       $\Rightarrow ((k \leq 0) \Rightarrow (0 = 0))$
       $\Rightarrow ((0 < k) \Rightarrow (0 = \text{fib}(k - 1)))$
       $\Rightarrow (v = \text{fib}(n+k))$
    5. $f(n,1,0) = v$
    $\vdash v = \text{fib}(n)$
  .

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http://www.nuprl.org/FDLcontent/p0_963683_/p25_480536_{fast-fib}2_1_1_1_1_1.html