

Inference at * 1 1 1 2
of proof for Lemma comp_nat_ind_tp:

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1.  $P : \mathbb{N} \rightarrow \mathbb{P}\{k\}$ 
2.  $\forall i:\mathbb{N}. (\forall j:\mathbb{N}. (j < i) \Rightarrow P(j)) \Rightarrow P(i)$ 
3.  $i : \mathbb{N}$ 
4.  $\forall zz,i:\mathbb{N}. (i < zz) \Rightarrow P(i)$ 
 $\vdash P(i)$ 
  by (\p.let i = mvt (var_of_hyp (-2) p) in
    let ip1 = mk_add_term i 1 in
      ((
        DTerm ip1 (-1))
        CollapseTHENM (DTerm i (-1)))· p)

1: .....wf..... NILNIL

      3.  $i : \mathbb{N}$ 
       $\vdash (i + 1) \in \mathbb{N}$ 
2: .....wf..... NILNIL

      3.  $i : \mathbb{N}$ 
       $\vdash i \in \mathbb{N}$ 
3:

      4.  $(i < (i + 1)) \Rightarrow P(i)$ 
       $\vdash P(i)$ 
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