

Inference at * 1 3
of proof for Lemma nat_ind.a:

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1.  $P : \mathbb{N} \rightarrow \mathbb{P}\{k\}$ 
2.  $P(0)$ 
3.  $\forall i:\mathbb{N}^+. P(i - 1) \Rightarrow P(i)$ 
4.  $i : \mathbb{Z}$ 
5.  $0 < i$ 
6.  $((i - 1) \geq 0) \Rightarrow P(i - 1)$ 
7.  $i \geq 0$ 
 $\vdash P(i)$ 
  by (((BHyp 3)
    CollapseTHENM (BHyp 6)).)
    CollapseTHEN ((Auto_aux (first_nat 1:n
      ) ((first_nat 2:n),(first_nat 3:n)) (first_tok :t) inil_term)))
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