Inference at $*$ 1 1 2 1
 of proof for Lemma comp_nat_ind_a:

1. $P : \mathbb{N} \to \mathbb{P}\{\mathrm{k}\}$
2. $\forall i{:}\mathbb{N}.\ (\forall j{:}\mathbb{N}.\ (j < i) \Rightarrow P(j)) \Rightarrow P(i)$
3. $s : \mathbb{N}$
4. $\forall t{:}\mathbb{N}.\ (t < s) \Rightarrow P(t)$

$\vdash P(s)$

 by (% done % ((((((BHyp 2)
 CollapseTHENM (RepD))·)
 CollapseTHENM (BHyp 4))·)

  CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t
) inil_term)))·)

  .

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_93324_{comp_nat_ind_a}1_1_2_1.html