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

1. $i : \mathbb{N}$
2. $f : \{f \mid i{:}\{i_1{:}\mathbb{N} \mid i_1\ (\lambda i,j.\ i < j)\ i\} \rightarrow$ if $(i =_0 0)$ then $\mathbb{Z}$ else $\{f(i\text{ - }1)\ldots\}$ fi $\}$
3. $\forall j{:}\{k{:}\mathbb{N} \mid k < i\}\ .\ f(j) \in \mathbb{Z}$

$\vdash$if $(i =_0 0)$ then $\mathbb{Z}$ else $\{f(i\text{ - }1)\ldots\}$ fi
by ((SplitITE 0)
THENW ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n
)) (first_tok :t) inil_term)))·

1: .....truecase..... NILNIL

4. $i = 0$
$\vdash \mathbb{Z}$

2: .....falsecase..... NILNIL

4. $i \neq 0$
$\vdash \{f(i\text{ - }1)\ldots\}$

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