Inference at $*$ 1 4 2 1 1
 of proof for Lemma fincr_wf:

. . . . .subterm. T:t1:n

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

$\vdash f(i \text{ - } 1) \in \mathbb{Z}$
 by ((With i - 1 (D (-2)))
 CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat 2:n
 ),(first_nat 3:n)) (first_tok :t) inil_term)))·

 .

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_83564_{fincr_wf}1_4_2_1_1.html