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

.....rewrite subgoal..... NILNIL

1. T : Type
2. T List
3. u : T
4. v : T List
5. $\forall x{:}T.\ (x \in v) \Rightarrow (\neg(x = \text{last}(v))) \Rightarrow x$ before $\text{last}(v) \in v$
6. x : T
7. $(x \in v)$
8. $\neg(x = \text{last}([u\ /\ v]))$

$\vdash \neg(\uparrow\text{null}(v))$

by ((((((((D 0)
CollapseTHEN (RW assert_pushdownC (-1)))·)
CollapseTHENA (
(Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·
)
CollapseTHEN (HypSubst (-1) (-3)))·)
CollapseTHEN ((Auto_aux (first_nat 1:n
) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

1:

7. $(x \in [])$
8. $\neg(x = \text{last}([u\ /\ v]))$
9. $v = []$

$\vdash$ False

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http://www.nuprl.org/FDLcontent/p0_963683_/p122_89337_{before_last}2_1_4_1_1.html