

Inference at * 1 3 1
of proof for Lemma last-not-before:

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1.  $T : \text{Type}$ 
2.  $L : T \text{ List}$ 
3.  $\neg(\uparrow\text{null}(L))$ 
4.  $\text{no\_repeats}(T;L)$ 
5.  $x : T$ 
6.  $\text{last}(L) \text{ before } x \in L$ 
7.  $\forall x, y:T. x \text{ before } y \in L \Rightarrow (\neg(x = y))$ 
8.  $\neg(\text{last}(L) = x)$ 
9.  $x \text{ before last}(L) \in L$ 
10.  $\text{last}(L) \text{ before last}(L) \in L$ 
 $\vdash \text{False}$ 
  by InteriorProof ((FHyp (-4) [-1])
  CollapseTHEN (Auto.)).

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1:

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11.  $\neg(\text{last}(L) = \text{last}(L))$ 
 $\vdash \text{False}$ 
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