

Inference at *
of proof for Lemma before-hd:

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⊢∀T:Type, L:(T List).  
  (0 < ||L||) ⇒ no_repeats(T;L) ⇒ (∀x:T. x before hd(L) ∈ L ⇔ False)  
  by ((Auto·)  
  CollapseTHEN (((InstLemma 'no_repeats_iff' [T;L])  
  THENM ((ThinTrivial  
  
  CollapseTHEN (Thin (-2))))·))·  
  CollapseTHENA (Auto·))·
```

1:

1. $T : \text{Type}$
 2. $L : T \text{ List}$
 3. $0 < \|L\|$
 4. $\text{no_repeats}(T;L)$
 5. $x : T$
 6. $x \text{ before } \text{hd}(L) \in L$
 7. $\forall x, y:T. x \text{ before } y \in L \Rightarrow (\neg(x = y))$
- ⊢ False
- .