

Inference at * 2 1 1 2 1
of proof for Lemma before-adjacent:

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1. T : Type
2. T List
3. u : T
4. v : T List
5. ∀x, y:T.
   no_repeats(T;v)
   ⇒ adjacent(T;v;x;y)
   ⇒ (∀z:T. z before y ∈ v ⇒ (z before x ∈ v ∨ (z = x)))
6. x : T
7. y : T
8. no_repeats(T;v)
9. ¬(u ∈ v)
10. 0 < ||v||
11. x = u
12. y = hd(v)
13. z : T
14. z before y ∈ v
⊢((z = u & (x ∈ v)) ∨ z before x ∈ v) ∨ (z = x)
  by ((InstLemma 'hd-before' [T;v;z])
    CollapseTHEN (Auto·)).

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1:antecedent..... NILNIL

⊢ (z ∈ v)

2:antecedent..... NILNIL

⊢ ¬(z = hd(v))

3:

15. hd(v) before z ∈ v

⊢ ((z = u & (x ∈ v)) ∨ z before x ∈ v) ∨ (z = x)

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