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

1. T : Type
2. T List
3. u : T
4. v : T List
5. $\forall x$, y:T.
   no_repeats(T;v)
   $\Rightarrow$ adjacent(T;v;x;y)
   $\Rightarrow$ ($\forall z$:T. z before $y \in v \Rightarrow (z$ before $x \in v \vee (z = x)))$
6. x : T
7. y : T
8. no_repeats(T;[u / v])
9. $0 < \|v\|$
10. $x = u$
11. $y = \text{hd}(v)$
12. z : T
13. z before $y \in v$

$\vdash ((z = u$ & $(x \in v)) \vee z$ before $x \in v) \vee (z = x)$
by ((RWO "no_repeats_cons" (-6))
CollapseTHEN (Auto$\cdot$))$\cdot$

1:

8. no_repeats(T;v)
9. $\neg(u \in v)$
10. $0 < \|v\|$
11. $x = u$
12. $y = \text{hd}(v)$
13. z : T
14. z before $y \in v$

$\vdash ((z = u$ & $(x \in v)) \vee z$ before $x \in v) \vee (z = x)$

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