Inference at $*$ 2 1 1 2 1 3 1
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;v)
9. $\neg(u \in v)$
10. $0 < \|v\|$
11. $x = u$
12. $y = \mathrm{hd}(v)$
13. z : T
14. z before $y \in v$
15. hd(v) before $z \in v$
16. $\neg z$ before hd(v) $\in v$

$\vdash((z = u$ & $(x \in v)) \vee z$ before $x \in v) \vee (z = x)$
by ((RevHypSubst (-5) (-1))
CollapseTHEN (Auto$\cdot$))$\cdot$

.