

Inference at * 1
of proof for Lemma adjacent-cons:

1. $T : \text{Type}$
 2. $x : T$
 3. $y : T$
 4. $u : T$
 5. $L : T \text{ List}$
 6. $i : \{0..(\|L\|+1) - 1\}^-$
 7. $x = [u / L][i]$
 8. $y = [u / L][(i+1)]$
 9. $0 < \|L\|$
- $\vdash (x = u \ \& \ y = \text{hd}(L)) \vee (\exists i:\{0..(\|L\| - 1)\}^- . (x = L[i] \ \& \ y = L[(i+1)]))$
by CaseNat 0 'i'

1:

10. $i = 0$
- $\vdash (x = u \ \& \ y = \text{hd}(L)) \vee (\exists i:\{0..(\|L\| - 1)\}^- . (x = L[i] \ \& \ y = L[(i+1)]))$

2:

10. $\neg(i = 0)$
- $\vdash (x = u \ \& \ y = \text{hd}(L)) \vee (\exists i:\{0..(\|L\| - 1)\}^- . (x = L[i] \ \& \ y = L[(i+1)]))$
- .