

Inference at * 2 2
of proof for Lemma member_nth_tl:

1. T : Type
2. n : \mathbb{Z}
3. $0 < n$
4. $\forall x:T, L:(T \text{ List}). (x \in \text{nth_tl}(n - 1;L)) \Rightarrow (x \in L)$
5. $x : T$
6. $T \text{ List}$
7. $u : T$
8. $v : T \text{ List}$
9. $(x \in \text{nth_tl}(n;v)) \Rightarrow (x \in v)$
 $\vdash (x \in \text{nth_tl}(n;[u / v])) \Rightarrow (x \in [u / v])$
by ((RecUnfold 'nth_tl' 0)
CollapseTHEN (((if (0
) =0 then SplitOnConclITE else SplitOnHypITE (0)).)
CollapseTHENA (Auto)).)).
- 1: ...truecase.... NILNIL
 10. $n \leq 0$
 $\vdash (x \in [u / v]) \Rightarrow (x \in [u / v])$
- 2: ...falsecase.... NILNIL
 10. $0 < n$
 $\vdash (x \in \text{nth_tl}(n - 1;\text{tl}([u / v]))) \Rightarrow (x \in [u / v])$