

Inference at \*  
of proof for Lemma hd\_member:

$\vdash \forall T:\text{Type}, L:(T \text{ List}). (\neg(\uparrow\text{null}(L))) \Rightarrow (\text{hd}(L) \in L)$   
by Auto THEN DVar 'L' THEN All Reduce THEN MaAuto

1:

1.  $T : \text{Type}$
  2.  $\neg\text{True}$
- $\vdash ([] \in [])$