Inference at $*$ 1
of proof for Lemma member-exists:

1. T : Type
2. L : T List
3. $\exists x{:}T.\ (x \in L)$

$\vdash \neg(L = [])$

by DVar 'L'

1:

2. $\exists x{:}T.\ (x \in [])$

$\vdash \neg([] = [])$

2:

2. u : T
3. v : T List
4. $\exists x{:}T.\ (x \in [u\ /\ v])$

$\vdash \neg([u\ /\ v] = [])$

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