

Inference at \* 2 1 1 2  
of proof for Lemma fseg\_select:

1.  $T : \text{Type}$
  2.  $l_1 : T \text{ List}$
  3.  $l_2 : T \text{ List}$
  4.  $\|l_1\| \leq \|l_2\|$
  5.  $\forall i:\mathbb{N}. (i < \|l_1\|) \Rightarrow (l_1[i] = l_2[(\|l_2\| - \|l_1\|) + i])$
  6.  $l_1 = \text{nth\_tl}(\|l_2\| - \|l_1\|; l_2)$
- $\vdash l_2 = (\text{firstn}(\|l_2\| - \|l_1\|; l_2) @ l_1)$   
by ((RW (AddrC [3;2] (HypC (-1))) 0)  
CollapseTHEN (Auto)).

1:

$$\vdash l_2 = (\text{firstn}(\|l_2\| - \|l_1\|; l_2) @ \text{nth\_tl}(\|l_2\| - \|l_1\|; l_2))$$