Inference at $*$ 1 1 1 1
 of proof for Lemma fseg_extend:

1. T : Type
2. l_1 : T List
3. v : T
4. l_2 : T List
5. L : T List
6. $l_2 = (L \mathbin{@} l_1)$
7. $\|l_1\| < \|l_2\|$
8. $l_2[(\|l_2\| - (\|l_1\|+1))] = v$
9. $\neg(\uparrow\text{null}(L))$
10. L' : T List
11. $L = (L' \mathbin{@} [\text{last}(L)])$
12. $0 < \|L\|$

$\vdash \text{last}(L) = (L \mathbin{@} l_1)[(\|L \mathbin{@} l_1\| - (\|l_1\|+1))]$

```
  by ((((RWO "select_append_front" 0)
  CollapseTHEN (Auto'))·)
  CollapseTHEN (((
    RWO "length_append" 0)
  CollapseTHEN (Auto'))·))·
```

1:

$\vdash \text{last}(L) = L[((\|L\|+\|l_1\|) - (\|l_1\|+1))]$

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http://www.nuprl.org/FDLcontent/p0_963683_/p12_1765038_{fseg_extend}1_1_1_1.html