

Inference at * 1
of proof for Lemma list_extensionality:

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1. T : Type
2. a : T List
3. b : T List
4. ||a|| = ||b||
5. ∀i:ℕ. (i < ||a||) ⇒ (a[i] = b[i])
⊢ a = b
  by (((((((((MoveToConcl 3)
    CollapseTHEN (ListInd 2)))·)
    CollapseTHEN (RAA (D 0)))·)
    CollapseTHEN (ListInd (-1)))·)
    CollapseTHEN (Reduce 0)))·)
    CollapseTHEN (
      (Auto_aux (first_nat 1:n) ((first_nat 2:n),(first_nat 3:n)) (first_tok SupInf:t
        ) inil_term)))·

```

1:

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3. u : T
4. v : T List
5. ∀b:(T List). (||v|| = ||b||) ⇒ (∀i:ℕ. (i < ||v||) ⇒ (v[i] = b[i])) ⇒ (v = b)
6. T List
7. u1 : T
8. v1 : T List
9. (|[u / v]| = ||v1||)
   ⇒ (∀i:ℕ. (i < |[u / v]|) ⇒ ([u / v][i] = v1[i]))
   ⇒ ([u / v] = v1)
10. ||v||+1 = ||v1||+1
11. ∀i:ℕ. (i < (||v||+1)) ⇒ ([u / v][i] = [u1 / v1][i])
⊢ [u / v] = [u1 / v1]
.

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