```
null_true_lemma  THM

⊢  ∀L:T List. null(L) = true₂ ⟺ L = nil  by UnivCD
|
1. T : Type
2. L : T List
⊢  null(L) = true₂ ⟺ L = nil
| by Analyze -1 THEN Rewrite (HigherC null_unrollC) 0
|
|\
| ⊢  true₂ = true₂ ⟺ nil = nil  by Auto
|
.\
. 3. u : T
. 4. v : T List
. ⊢  false₂ = true₂ ⟺ u.v = nil  by Auto
. |
. |\
. | 5. false₂ = true₂
. | ⊢  u.v = nil
. |   by ApFunToHypEquands ‘x’ if x→ 0 else 1 fi ℤ -1
. |      THEN
. |      AbReduce -1
. |
. .\
. . 5. u.v = nil
. . ⊢  false₂ = true₂
. .   by ApFunToHypEquands ‘x’ (Case of x; nil → 0 ; h.t → 1) ℤ -1
. .      THEN
. .      AbReduce -1
END
```