

Inference at * 1
of proof for Lemma connex_functionality_wrt_implies:

1. $T : \text{Type}$
2. $R : T \rightarrow T \rightarrow \mathbb{P}$
3. $R' : T \rightarrow T \rightarrow \mathbb{P}$
4. $\forall x, y:T. R(x,y) \Rightarrow R'(x,y)$
5. $\forall x, y:T. R(x,y) \vee R(y,x)$
6. $x : T$
7. $y : T$

$\vdash R'(x,y) \vee R'(y,x)$

by ((ReplaceWith $\forall x, y:T. \{R(x,y) \Rightarrow R'(x,y)\}$ 4)

CollapseTHENA (((Unfold 'guard' 0)

CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 4:n)) (first_tok :t
) inil_term)))·)).

1:

4. $\forall x, y:T. \{R(x,y) \Rightarrow R'(x,y)\}$
 5. $\forall x, y:T. R(x,y) \vee R(y,x)$
 6. $x : T$
 7. $y : T$
- $\vdash R'(x,y) \vee R'(y,x)$

.