

Inference at * 1
of proof for Lemma order_functionality_wrt_iff:

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1. T : Type
2. R : T → T → ℙ
3. R' : T → T → ℙ
4. ∀ x, y:T. R(x,y) ⇔ R'(x,y)
⊢ (Refl(T;x,y.R(x,y)) & Trans(T;x,y.R(x,y)) & AntiSym(T;x,y.R(x,y)))
  ⇔ (Refl(T;x,y.R'(x,y)) & Trans(T;x,y.R'(x,y)) & AntiSym(T;x,y.R'(x,y)))
  by InteriorProof ((RWH (HypC 4) 0)
CollapseTHENA ((Auto_aux (first_nat 1:n
                        ) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))

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1:

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⊢ (Refl(T;x,y.R'(x,y)) & Trans(T;x,y.R'(x,y)) & AntiSym(T;x,y.R'(x,y)))
  ⇔ (Refl(T;x,y.R(x,y)) & Trans(T;x,y.R(x,y)) & AntiSym(T;x,y.R(x,y)))
.

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