

Inference at * 1 1 1
of proof for Lemma connex_iff_trichot:

```

1. T : Type
2. R : T → T → ℙ
3. ∀ a, b : T. Dec(R(a,b))
4. ∀ x, y : T. R(x,y) ∨ R(y,x)
5. a : T
6. b : T
7. R(a,b)
⊢ (R(a,b) & (¬R(b,a))) ∨ (R(a,b) & R(b,a)) ∨ (R(b,a) & (¬R(a,b)))
  by (((Decide R(b,a))
    CollapseTHENM (ProveProp))·)
CollapseTHENA (
  (Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·
.

```