

Inference at * 1 1
of proof for Lemma bij_imp_exists_inv:

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1. A : Type
2. B : Type
3. f : A → B
4. ∀ a1, a2:A. (f(a1) = f(a2)) ⇒ (a1 = a2)
5. ∀ b:B. ∃ a:A. (f(a) = b)
⊢ ∃ g:B → A. InvFuns(A;B;f;g)
  by (((FwdThruLemma 'ax_choice' [5])
    CollapseTHENM (Thin 5)).)
CollapseTHEN (
  (Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

1:

5. ∃ f1:B → A. (∀ b:B. f(f1(b)) = b)
⊢ ∃ g:B → A. InvFuns(A;B;f;g)
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