

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

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1. T : Type
2. E : T → T → ℙ
3. g : ∀x, y:T. (E(x,y)) ∨ (¬(E(x,y)))
4. x : T
5. y : T
⊢ (↑case g(x,y) of inl(a) => tt | inr(b) => ff) ⇔ (E(x,y))
  by ((With x (D 3))
    CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n
      ),(first_nat 4:n)) (first_tok :t) inil_term))))

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1:

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3. g : x:T → ∀y:T. (E(x,y)) ∨ (¬(E(x,y)))
4. x : T
5. y : T
6. y1 : ∀y:T. (E(x,y)) ∨ (¬(E(x,y)))
7. y1 = g(x)
⊢ (↑case g(x,y) of inl(a) => tt | inr(b) => ff) ⇔ (E(x,y))
.

```