

Inference at * 1 1 1 2
of proof for Lemma decidable__quotient_equal:

1. $T : \text{Type}$
2. $E : T \rightarrow T \rightarrow \mathbb{P}$
3. $\text{EquivRel}(T; x, y. E(x, y))$
4. $f : T \rightarrow T \rightarrow \mathbb{B}$
5. $\forall x, y : T. (\uparrow(x \ f \ y)) \iff E(x, y)$
6. $f \in (x, y : T // E(x, y)) \rightarrow (x, y : T // E(x, y)) \rightarrow \mathbb{B}$

$\vdash \exists f : (x, y : T // E(x, y)) \rightarrow (x, y : T // E(x, y)) \rightarrow \mathbb{B}. (\forall u, v : (x, y : T // E(x, y)). (\uparrow(u \ f \ v)) \iff (u = v))$
by ((With f (D 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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$\vdash \forall u, v : (x, y : T // E(x, y)). (\uparrow(u \ f \ v)) \iff (u = v)$

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