Inference at $*$ 1 1 1
of proof for Lemma decidable_quotient_equal:

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

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

1: .....assertion..... NILNIL

$\vdash f \in (x,y{:}T//E(x,y)) \to (x,y{:}T//E(x,y)) \to \mathbb{B}$

2:

6. $f \in (x,y{:}T//E(x,y)) \to (x,y{:}T//E(x,y)) \to \mathbb{B}$

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

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_78690_{decidable_quotient_equal}1_1_1.html