Inference at $*$ 2 0
of proof for Lemma exists_functionality_wrt_iff:

1. S : Type
2. T : Type
3. P : $S \to \mathbb{P}$
4. Q : $S \to \mathbb{P}$
5. $S = T$
6. $\forall x{:}S.\ P(x) \iff Q(x)$
7. $\exists y{:}T.\ Q(y)$

$\vdash$ $\exists x{:}S.\ P(x)$

by PERMUTE{1:n, 1:n, 2:n}

1: . . . . .wf. . . . . NILNIL

7. $y : T$
8. $Q(y)$

$\vdash$ $y \in S$

2: . . . . .wf. . . . . NILNIL

7. $y : T$
8. $Q(y)$
9. $x : S$

$\vdash$ $P(x) \in \mathbb{P}$

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