

Inference at * 1 2
of proof for Lemma iff_preserves_decidability:

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1.  $A : \mathbb{P}$ 
2.  $B : \mathbb{P}$ 
3.  $\neg A$ 
4.  $A \iff B$ 
 $\vdash B \vee (\neg B)$ 
  by InteriorProof (((DNth 2 0)
  CollapseTHENM (D 0)).)
  CollapseTHEN (
    (Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok
    :t) inil_term))).

```

1:

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4.  $A \Rightarrow B$ 
5.  $A \Leftarrow B$ 
6.  $B$ 
 $\vdash \text{False}$ 
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