

Inference at \*  
of proof for Lemma dcd-r-to-bool-equivalence:

$\vdash \forall P:\mathbb{P}, d:\text{Dec}(P). (\uparrow[d]_b) \iff P$   
by Auto.

1:

1.  $P : \mathbb{P}$
  2.  $d : \text{Dec}(P)$
  3.  $\uparrow[d]_b$
- $\vdash P$

2:

1.  $P : \mathbb{P}$
  2.  $d : \text{Dec}(P)$
  3.  $P$
- $\vdash \uparrow[d]_b$
- .