

Inference at \* 1 4  
of proof for Lemma decidable\_or:

1.  $P : \mathbb{P}$
2.  $Q : \mathbb{P}$
3.  $\neg P$
4.  $\neg Q$

$\vdash (P \vee Q) \vee (\neg(P \vee Q))$   
by InteriorProof ((((((DNth 2 0)  
CollapseTHENM (D 0)).)  
CollapseTHENM (D (-1)).)

CollapseTHEN ((Auto\_aux (first\_nat 1:n) ((first\_nat 1:n),(first\_nat  
3:n)) (first\_tok :t) inil\_term))).