

Inference at * 1 3
of proof for Lemma decidable_implies:

```
1. P :  $\mathbb{P}$ 
2. Q :  $\mathbb{P}$ 
3.  $\neg P$ 
4. Q
 $\vdash (P \Rightarrow Q) \vee (\neg(P \Rightarrow Q))$ 
  by ((DNth 1 0)
      CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)
        )) (first_tok :t) inil_term)))
```