

Inference at \* 1 0 1 1  
of proof for Lemma nat\_ind:

.....downcase..... NILNIL

1.  $P : \mathbb{N} \rightarrow \mathbb{P}\{k\}$
2.  $P(0)$
3.  $\forall i:\mathbb{N}^+. P(i - 1) \Rightarrow P(i)$
4.  $j : \mathbb{Z}$
5.  $j < 0$
6.  $((j+1) \geq 0) \Rightarrow P(j+1)$
7.  $(j \geq 0) \Rightarrow P(j)$   
by D 0

1:

$$\begin{aligned} 7. \ j &\geq 0 \\ \vdash P(j) \end{aligned}$$

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

$$\vdash (j \geq 0) \in \mathbb{P}_1$$