

$$c) p_3 \stackrel{?}{\in} \Gamma \quad \{p_0, \neg(p_1 \rightarrow p_2), p_3 \vee p_2\} \subseteq \Gamma$$

Problemas que

$$\langle \exists \mathcal{D} : \mathcal{D} \in \mathcal{D} : \text{Hip}(\mathcal{D}) \subseteq \Gamma \ \& \ \text{concl}(\mathcal{D}) = p_3 \rangle$$

$$\mathcal{D} := \frac{\frac{p_3 \vee p_2 \quad \frac{\frac{[\neg p_3]_1 \quad [p_3]_2 \rightarrow E}{\perp} \quad \frac{\frac{\frac{\neg(p_1 \rightarrow p_2) \quad \frac{[p_2]_4}{p_1 \rightarrow p_2} \rightarrow I_5}{p_1 \rightarrow p_2} \rightarrow E}{\perp} \rightarrow I_4}{\neg p_2} \quad [p_2]_3 \rightarrow E}{\perp} \vee E_{2,3}}{\perp} RRA_1}{p_3}$$

luego \mathcal{D} atestigua $\Gamma \vdash p_3$

lema 32

$$\Gamma \vdash p_3 \implies p_3 \in \Gamma$$