Règles de la déduction naturelle

$$\frac{A \in \Gamma}{\Gamma \vdash A}\ (ax) \qquad \frac{}{\Gamma \vdash \top}\ (\top_i)$$

$$\frac{\Gamma, \neg A \vdash \bot}{\Gamma \vdash A}\ (RAA) \qquad ou \qquad \frac{\Gamma \vdash \bot}{\Gamma \vdash A}\ (\bot_e)$$

$$\frac{\Gamma, A \vdash B}{\Gamma \vdash A \to B}\ (\to_i) \qquad \frac{\Gamma \vdash A \to B \qquad \Gamma \vdash A}{\Gamma \vdash B}\ (\to_e)$$

$$\frac{\Gamma, A \vdash \bot}{\Gamma \vdash \neg A}\ (\neg_i) \qquad \frac{\Gamma \vdash \neg A \qquad \Gamma \vdash A}{\Gamma \vdash \bot}\ (\neg_e)$$

$$\frac{\Gamma \vdash A \qquad \Gamma \vdash B}{\Gamma \vdash A \wedge B}\ (\wedge_i) \qquad \frac{\Gamma \vdash A \wedge B}{\Gamma \vdash A}\ (\wedge_{e_g}) \qquad \frac{\Gamma \vdash A \wedge B}{\Gamma \vdash B}\ (\wedge_{e_d})$$

$$\frac{\Gamma \vdash A}{\Gamma \vdash A \vee B}\ (\vee_{i_g}) \qquad \frac{\Gamma \vdash B}{\Gamma \vdash A \vee B}\ (\vee_{i_d}) \qquad \frac{\Gamma \vdash A \vee B \qquad \Gamma, A \vdash C \qquad \Gamma, B \vdash C}{\Gamma \vdash C}\ (\vee_e)$$

$$\frac{\Gamma \vdash A \qquad x \notin FV(\Gamma)}{\Gamma \vdash \forall x\ A}\ (\forall_i) \qquad \frac{\Gamma \vdash \forall x\ A}{\Gamma \vdash A[x := t]}\ (\forall_e)$$

$$\frac{\Gamma \vdash A[x := t]}{\Gamma \vdash \exists x\ A}\ (\exists_i) \qquad \frac{\Gamma \vdash \exists x\ A \qquad \Gamma, A \vdash B \qquad x \notin FV(\Gamma, B)}{\Gamma \vdash B}\ (\exists_e)$$