$$
\begin{array}{rcl}
\mathrm{R}(a) & = & \{M \mid M \text{ is SN}\} \\
\mathrm{R}(A \to B) & = & \{M \mid \forall N \in \mathrm{R}(A).\, MN \in \mathrm{R}(B)\} \\
\mathrm{R}(\forall \overline{a}.\ A) & = & \{M \mid \text{for all } \overline{B} \in \mathscr{P}(\mathbb{T}),\ M \in \mathrm{R}(A[\overline{B}/\overline{a}])\}
\end{array}
$$

Lemma
for all A: VHSN $\subseteq R(A) \subseteq$ SN

Lemma
If, for all $N \in \mathrm{R}(B)$: $M[N/x] \in \mathrm{R}(A)$, then for all N: $(\lambda x.M)N \in \mathrm{R}(A)$.

Theorem

Suppose $\Gamma \vdash M : B$ and, for each variable $x \in \mathrm{dom}(\Gamma)$, there is a term N_x such that $N_x \in \mathrm{R}(\Gamma(x))$.
Then $M[N_x/x \mid x \in \mathrm{dom}(\Gamma)] \in \mathrm{R}(B)$.

Corollary (Strong Normalisation)
If $\Gamma \vdash M : A$ then M is SN.