

$$\begin{array}{|l}
\hline
cumulative_total : seq \mathbb{N} \longrightarrow \mathbb{N} \\
\hline
cumulative_total(\langle \rangle) = 0 \wedge \\
(\forall x : \mathbb{N} \bullet \forall s : seq \mathbb{N} \bullet cumulative_total(\langle x \rangle \frown s) = x + cumulative_total(s))
\end{array}$$