\( R_1 \quad \text{sum}([], 0) \).

\( R_2 \quad \text{sum}([X|Xs], X+S) := \text{sum}(Xs, S) \).

\[
G_0 = \langle \text{sum}([100], N) \mid \text{true} \rangle
\]

\[
\quad \xrightarrow{R_1} \quad \xrightarrow{R_2}
\]

\[
\langle \square \mid \text{false} \rangle \quad \langle \text{sum}([], S) \mid N = S+100 \rangle
\]

\[
\quad \xrightarrow{R_1} \quad \xrightarrow{R_2}
\]

\[
\langle \square \mid N = 100 \rangle \quad \langle \square \mid \text{false} \rangle
\]
Go = \sum (As, 10) \mid \text{true}

\sum (xs, s) \mid [xs] = As, x+s = 10

\sum (xs', s') \mid [x, x' / xs'] = As, x+x+s' = 10

As = [10]

As = [x, x'], x+x' = 10

\sum (xs'', s'') \mid [x, x', x'' / xs''] = As, x+x' + x'' + s'' = 10

As = [x, x', x''] , x+x'+x'' = 10

\ldots

infinite tree