1 Grammar

$$A, B, C, \ldots ::= \texttt{int}$$
$$| x$$
$$| x < A, B, \cdots >$$
$$| ()$$
$$| !$$
$$| !A$$
$$| ?A$$
$$| A * B * \ldots$$
$$| A + B + \ldots$$
$$| A \multimap B$$
$$| \mu x.A$$
$$| \forall x.A$$

$$P, Q, \ldots ::= \_$$
$$| x$$
$$| n$$
$$| ()$$
$$| P, Q, \ldots$$
$$| \texttt{inj} \ n \ P$$

$$
\begin{aligned}
e, f, g, \ldots \ ::= \ & x \\
& |\, n \\
& |\, () \\
& |\, e < A, B, \cdots > \\
& |\, \texttt{inj}\ A\ n\ e \\
& |\, \texttt{unroll}\ e \\
& |\, \texttt{roll}\ A\ e \\
& |\, e f \\
& |\, \texttt{let}\ P = e\ \texttt{in}\ f \\
& |\, -e \\
& |\, e + f \\
& |\, e - f \\
& |\, e * f \\
& |\, e / f \\
& |\, e \% f \\
& |\, e = f \\
& |\, e < f \\
& |\, e, f, \ldots \\
& |\, \texttt{match}\ e\{P \Rightarrow f, Q \Rightarrow g, \ldots\} \\
& |\, \texttt{fun} < x, y, \cdots > (P : A, Q : B, \ldots) \multimap C\{e\} \\
& |\, \texttt{rec fun} < x, y, \cdots > (P : A, Q : B, \ldots) \multimap C\{e\}
\end{aligned}
$$