$$
\begin{array}{rll}
e ::= & x \mid (e\ e) \mid \lambda x^{\tau}.e \mid (\mathbf{if}\ e\ e\ e) \mid c \mid \#\mathrm{t} \mid \#\mathrm{f} \mid n & \text{Expressions} \\
c ::= & \mathit{add1} \mid \mathit{zero?} \mid \mathit{num?} \mid \mathit{bool?} \mid \mathit{proc?} & \text{Primitive Operations} \\
o ::= & x & \text{Objects} \\
\sigma, \tau ::= & \top \mid \mathbf{N} \mid \mathbf{T} \mid \mathbf{F} \mid (\bigcup \overrightarrow{\tau}) \mid x{:}\sigma \xrightarrow[o]{\psi|\psi} \tau & \text{Types} \\
\psi ::= & \tau_{\pi(x)} \mid \overline{\tau}_{\pi(x)} \mid \psi \wedge \psi \mid \psi \vee \psi \mid \mathbb{T} \mid \mathbb{F} & \text{Propositions} \\
\Gamma ::= & \overrightarrow{\psi} & \text{Environments}
\end{array}
$$

$\bot$ is defined as $(\bigcup)$, $\mathbf{B}$ is defined as $(\bigcup\ \mathbf{T}\ \mathbf{F})$.

Figure 1: Syntax of Types, Propositions, Terms, etc...