



→ Estes programas devem compilar com o compilador de Haskell

precisam de nome p/ a linguagem

① ~ ⑨ - a ordem pela qual vão implementar a linguagem

expressions

$e ::=$

\boxed{H}	integer	char	true	false	e	e	①
\boxed{H}	(e, e)	\boxed{S}	$\text{let } x, x = e \text{ in } e$				③
\boxed{H}	C, \dots	\boxed{HS}	$\text{case } e \text{ of } (C_k x_1 \dots x_{n_k} \rightarrow e_k)_{k=1}^m$				④ ⑦
$\boxed{?}$	$\text{fork } e$	e					⑤
\boxed{S}	$\text{new } T$						④
\boxed{S}	$\text{send } e \text{ e}$	$\text{receive } e$					
\boxed{S}	$\text{select } e$						⑧

programs

$P ::=$

empty

\boxed{H}	$\text{data } D = (C_k T_1 \dots T_{n_k})_{k=1}^m$	P	⑦
\boxed{H}	$\text{type } E = T$	P	⑦
\boxed{H}	$x : T$	P	①
\boxed{H}	$x = e$	P	

more expressions

see Haskell

$e ::=$	$\boxed{\text{H.}}$	$e \otimes e \mid \text{mod} \mid \text{run}$	$\otimes ::= + \mid - \mid / \mid *$	$\textcircled{2}$
		$e \textcircled{\wedge} e$	$\textcircled{\wedge} ::= \& \mid \parallel \mid \text{not}$	
	$\boxed{\text{H.}}$	$\text{if } e \text{ then } e \text{ else } e$		$\textcircled{6}$
	$\boxed{\text{H.}}$	$\text{id} \rightarrow e$		$\textcircled{7}$
	$\boxed{\text{H.}}$	$[e_1, \dots, e_n] \ (n \geq 0) \mid e : e$		$\textcircled{9}$

x, id - identifiers - lower case (start with $_$)

C - constructor - starts with uppercase
includes labels on semantic type choices