termvar, x, y
funcname, `name`
indecies, i, j

types, T, A, B, C	::=		Types
	|	Bool	
Γ	::=		Typing Context
	|	$\emptyset$	
	|	$x_1 : T_1, ..., x_i : T_i$	
program, p	::=		Programs
	|	$\mathsf{func\,name}(x_1 : T_1, ..., x_i : T_i) \to T\{body\}$	
	|	$p_1\,p_2$	
	|	(p)	
body	::=		Function Bodies
	|	$asgn; t$	Body with assignments
	|	t	Body without assignments
lv	::=		Assignment Tags
	|	let	Use x at least once
	|	var	Use x any number of times
assignemnts, *asgn*	::=		Variable Assignments
	|	$lv_1\,x_1 : T_1 = b_1; ...; lv_j\,x_j : T_j = b_j$	
t	::=		Terms
	|	x	A variable
	|	T	Logical true
	|	F	Logical false
	|	if b_1 then t_1 else t_2	Pattern Matching for booleans
	|	$\mathsf{name}(b_1, ..., b_i)$	Function application
	|	return b	Return of a term
	|	$EC[t]$	Plugging the hole in EC gives
	|	(t)	S
b	::=		Basic Terms
	|	x	A variable
	|	T	Logical true
	|	F	Logical false
	|	if b_1 then t_2 else t_3	Pattern Matching for booleans
	|	$\mathsf{name}(b_1, ..., b_i)$	Function application
	|	$EC[b]$	Plugging the hole in EC gives
	|	(b)	S
v	::=		Values
	|	T	
	|	F	
Δ	::=		Contexts of Function Definitions
	|	p_1	
	|	Δ_1, Δ_2	

TP	$::=$		List of Term Parameters
	|	$\emptyset$	Empty List
	|	b, TP	Term Argument

CP	$::=$		Evaluation Contexts for Parameters
	|	$\emptyset$	Empty List
	|	EC, TP	Context Evaluation Argument
	|	b, CP_2	Term Argument

$evalctx$, EC	$::=$		Evaluation Contexts
	|	$\square$	The hole (location of the evaluation point)
	|	T	
	|	F	
	|	if EC then t_2 else t_3	
	|	$\texttt{name}(CP)$	
	|	return b	
	|	(EC)	S

$\boxed{\Gamma \vdash t : T}$ Type Checking

$$\frac{x : T \in \Gamma}{\Gamma \vdash x : T} \quad \text{T\_VAR}$$

$\boxed{\Delta \vdash t_1 \leadsto t_2}$ Single-Step Reduction for Terms

$$\frac{}{\Delta \vdash \text{if } T \text{ then } t_1 \text{ else } t_2 \leadsto t_1} \quad \text{IFT}$$

$$\frac{}{\Delta \vdash \text{if } \mathsf{F} \text{ then } t_1 \text{ else } t_2 \leadsto t_2} \quad \text{IFF}$$

$$\frac{}{\Delta \vdash \text{return } b \leadsto b} \quad \text{RETURN}$$

$$\frac{(\texttt{func name}(x_1 : T_1, \dots, x_i : T_i) \to T\{lv_1\ y_1 : A_1 = b_1; \dots; lv_j\ y_j : A_j = b_j; t\}) \in \Delta}{\Delta \vdash \texttt{name}(v_1, \dots, v_i) \leadsto [v_1, \dots, v_i / x_1, \dots, x_i][b_1, \dots, b_j / y_1, \dots, y_j]t} \quad \text{BETA}$$

$\boxed{\Delta \vdash t_1 \leadsto^* t_2}$ Multi-Step Reduction for Terms

$$\frac{\Delta \vdash t_1 \leadsto t_2}{\Delta \vdash EC[t_1] \leadsto^* EC[t_2]} \quad \text{STEP}$$

$$\frac{\Delta \vdash t_1 \leadsto t_2 \quad \Delta \vdash EC[t_2] \leadsto^* EC[t_3]}{\Delta \vdash EC[t_1] \leadsto^* EC[t_3]} \quad \text{MULT}$$

```
Definition rules:         7 good    0 bad
Definition rule clauses: 11 good    0 bad
```