var, x	term variable			
tvar, X	type variable			
term, t	::=			term
	|	x		variable
	|	$\lambda\, x\,.\, t$	bind x in t	abstraction
	|	$t_1\; t_2$		application
	|	$(\, t\,)$	S	
	|	$\{\, t_1 \,/\, x\,\}\, t_2$	M	
value, v	::=			value
	|	$\lambda\, x\,.\, t$	bind x in t	abstraction
type, S, T	::=			type
	|	X		variable
	|	$T \to T'$		function
	|	$(\, T\,)$	S	
env, E	::=			type environment
	|	**empty**		
	|	$env\,,\, x\, :\, T$		
formula	::=			
	|	*judgement*		
	|	$x\, :\, T \in env$		
	|	**ok** *env*		
terminals	::=			
	|	λ		
	|	$\longrightarrow$		
	|	$\Longrightarrow$		
	|	$\to$		
	|	$\vdash$		
	|	$\in$		
Jtype	::=			
	|	$E \vdash t\, :\, T$		
Jop	::=			
	|	$t_1 \longrightarrow t_2$		t_1 reduces to t_2
Jopf	::=			
	|	$t_1 \Longrightarrow t_2$		t_1 full-reduces to t_2
judgement	::=			
	|	*Jtype*		
	|	*Jop*		
	|	*Jopf*		
user_syntax	::=			

| *var*
| *tvar*
| *term*
| *value*
| *type*
| *env*
| *formula*
| *terminals*

$\boxed{E \vdash t : T}$

$$\frac{\mathbf{ok}\, E \quad x : T \in E}{E \vdash x : T}\ \text{TYPING\_VAR}$$

$$\frac{E \vdash t_1 : S \to T \quad E \vdash t_2 : S}{E \vdash t_1\, t_2 : T}\ \text{TYPING\_APP}$$

$$\frac{E\,,\, x : S \vdash t : T}{E \vdash \lambda\, x\,.\, t : S \to T}\ \text{TYPING\_LAM}$$

$\boxed{t_1 \longrightarrow t_2}$ t_1 reduces to t_2

$$\frac{}{(\,\lambda\, x\,.\, t_1\,)\, v_2 \longrightarrow \{\, v_2 \,/\, x \,\}\, t_1}\ \text{AX\_APP}$$

$$\frac{t_1 \longrightarrow t_1'}{t_1\, t_2 \longrightarrow t_1'\, t_2}\ \text{CTX\_APP\_FUN}$$

$$\frac{t_2 \longrightarrow t_2'}{v_1\, t_2 \longrightarrow v_1\, t_2'}\ \text{CTX\_APP\_ARG}$$

$\boxed{t_1 \Longrightarrow t_2}$ t_1 full-reduces to t_2

$$\frac{}{(\,\lambda\, x\,.\, t_1\,)\, t_2 \Longrightarrow \{\, t_2 \,/\, x \,\}\, t_1}\ \text{FULL\_REDUCE\_RED}$$

$$\frac{t_1 \Longrightarrow t_1'}{t_1\, t_2 \Longrightarrow t_1'\, t_2}\ \text{FULL\_REDUCE\_APP1}$$

$$\frac{t_2 \Longrightarrow t_2'}{t_1\, t_2 \Longrightarrow t_1\, t_2'}\ \text{FULL\_REDUCE\_APP2}$$

$$\frac{t_1 \Longrightarrow t_1'}{\lambda\, x\,.\, t_1 \Longrightarrow \lambda\, x\,.\, t_1'}\ \text{FULL\_REDUCE\_ABS}$$

```
Definition rules:         10 good    0 bad
Definition rule clauses: 20 good    0 bad
```