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	
	|	$\{\, t_2\, /\, x\, \}\, t_1$	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
	|	$\longrightarrow$
	|	$\to$
	|	$\vdash$
	|	$\in$

Jtype	::=	
	|	$E \vdash t : T$

Jop	::=		
	|	$t_1 \longrightarrow t_2$	t_1 reduces to t_2

judgement	::=	
	|	*Jtype*
	|	*Jop*

user_syntax	::=	
	|	*var*
	|	*tvar*
	|	*term*
	|	*value*
	|	*type*

| *env*
| *formula*
| *terminals*

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

$$\frac{\begin{array}{c}\mathbf{ok}\,E \\ x : T \in E\end{array}}{E \vdash x : T} \quad \text{TYPING\_VALUE\_NAME}$$

$$\frac{\begin{array}{c}E \vdash t_1 : S \rightarrow T \\ E \vdash t_2 : S\end{array}}{E \vdash t_1\,t_2 : T} \quad \text{TYPING\_APPLY}$$

$$\frac{E\,,\,x_1 : S \vdash t : T}{E \vdash \lambda\,x_1\,.\,t : S \rightarrow T} \quad \text{TYPING\_LAMBDA}$$

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

$$\frac{}{(\,\lambda\,x_1\,.\,t_1\,)\,v_2 \longrightarrow \{\,v_2\,/\,x_1\,\}\,t_1} \quad \text{AX\_APP}$$

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

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

```
Definition rules:        6 good     0 bad
Definition rule clauses: 13 good     0 bad
```