n, m				
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
	|	$(\, t_1\, ,\, ...\, ,\, t_n\,)$		tuple
	|	$(\, t\,)$	S	
	|	$\{\, t_1 \,/\, x\, \}\, t_2$	M	
$value$, v	::=			value
	|	$\lambda\, x\, .\, t$	bind x in t	abstraction
	|	$(\, v_1\, ,\, ...\, ,\, v_n\,)$		tuple
$type$, S, T	::=			type
	|	X		variable
	|	$T \;\rightarrow\; T'$		function
	|	$T_1 \;*\; ....\; *\; T_n$		tuple
	|	$(\, T\,)$	S	
env, E	::=			type environment
	|	**empty**		
	|	$env\, ,\, x\, :\, T$		
$formula$	::=			
	|	$judgement$		
	|	$x\, :\, T \in env$		
	|	**ok** env		
	|	$formula_1 \quad .... \quad formula_n$		
$terminals$	::=			
	|	λ		
	|	$\longrightarrow$		
	|	$\rightarrow$		
	|	$\vdash$		
	|	$\in$		
$Jtype$	::=			
	|	$E \vdash t\, :\, T$		
Jop	::=			
	|	$t_1 \longrightarrow t_2$		t_1 reduces to t_2
$judgement$	::=			
	|	$Jtype$		
	|	Jop		
$user\_syntax$	::=			
	|	n		

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

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

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

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

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

$$\frac{\mathbf{ok}\, E \quad E \vdash t_1 : T_1 \quad .... \quad E \vdash t_n : T_n}{E \vdash (\, t_1\,,\, ...\,,\, t_n\,) : T_1 * .... * T_n} \text{ TYPING\_TUPLE}$$

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

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

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

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

$$\frac{t \longrightarrow t'}{(\, v_1\,,\, ..\,,\, v_n\,,\, t\,,\, t_1\,,\, ..\,,\, t_m\,) \longrightarrow (\, v_1\,,\, ..\,,\, v_n\,,\, t'\,,\, t_1\,,\, ..\,,\, t_m\,)} \text{ TUPLE}$$

```
Definition rules:          8 good    0 bad
Definition rule clauses:  18 good    0 bad
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