var, x, y, z			
context, G	::=		
	|	**nil**	
	|	G, x	
type, t, A, B	::=		
	|	**int**	
	|	**forall** $x.t$	bind x in t
	|	$t_1 -> t_2$	
	|	x	
	|	(t)	S
	|	$[t_1/x]t_2$	M
formula	::=		
	|	*judgement*	
	|	$x \# G$	M
Monotype	::=		
	|	**mono** A	
InContext	::=		
	|	x **in** G	
DeclarativeSubtyping	::=		
	|	$\| - G$	
	|	$G\| - t$	
	|	$G\| - t_1 <: t_2$	
judgement	::=		
	|	*Monotype*	
	|	*InContext*	
	|	*DeclarativeSubtyping*	
user_syntax	::=		
	|	*var*	
	|	*context*	
	|	*type*	
	|	*formula*	

$\boxed{\textbf{mono}\ A}$

$$\frac{}{\textbf{mono}\ \textbf{int}}\ \text{MONO\_INT}$$

$$\frac{}{\textbf{mono}\ x}\ \text{MONO\_VAR}$$

$$\frac{\textbf{mono}\ t_1 \quad \textbf{mono}\ t_2}{\textbf{mono}\ t_1 -> t_2}\ \text{MONO\_ARROW}$$

$\boxed{x\ \textbf{in}\ G}$

$$\frac{}{x\ \textbf{in}\ G, x}\ \text{IN\_HERE}$$

$$\frac{x\ \mathbf{in}\ G}{x\ \mathbf{in}\ G, y}\ \text{IN\_\_THERE}$$

$\boxed{|- G}$

$$\frac{}{|- \mathbf{nil}}\ \text{WF\_\_CTX\_\_NIL}$$

$$\frac{|- G \quad x\#G}{|- G, x}\ \text{WF\_\_CTX\_\_CONS}$$

$\boxed{G|- t}$

$$\frac{|- G}{G|- \mathbf{int}}\ \text{WF\_\_TYP\_\_INT}$$

$$\frac{|- G \quad x\ \mathbf{in}\ G}{G|- x}\ \text{WF\_\_TYP\_\_VAR}$$

$$\frac{|- G \quad G|- t_1 \quad G|- t_2}{G|- t_1 -> t_2}\ \text{WF\_\_TYP\_\_ARROW}$$

$\boxed{G|- t_1 <: t_2}$

$$\frac{x\ \mathbf{in}\ G}{G|- x <: x}\ \text{S\_\_VAR}$$

$$\frac{}{G|- \mathbf{int} <: \mathbf{int}}\ \text{S\_\_INT}$$

$$\frac{G|- B_1 <: A_1 \quad G|- A_2 <: A_2}{G|- A_1 -> A_2 <: B_1 -> B_2}\ \text{S\_\_ARROW}$$

$$\frac{G|- t \quad \mathbf{mono}\ t \quad G|- [t/x]A <: B}{G|- \mathbf{forall}\ x.A <: B}\ \text{S\_\_FORALLL}$$

$$\frac{G, x|- A <: B}{G|- A <: \mathbf{forall}\ x.B}\ \text{S\_\_FORALLR}$$

```
Definition rules:         15 good    0 bad
Definition rule clauses: 33 good    0 bad
```