

first-order logic rules

universal elimination ($\forall E$)

3.		$\forall x Px$	
4.		Pa	: $\forall E 3$

Drop the $\forall x$ and replace the variable with a name.

variables: $v - z$
names: $a - t$

existential introduction ($\exists I$)

3.		Fa	
4.		$\exists x Fx$: $\exists I 3$

Add an $\exists x$ and replace the name with a variable.

universal introduction ($\forall I$)

3.		Ga	
4.		$\forall x Gx$: $\forall I 3$

Add an $\forall x$ and replace the name with a variable.

The name (on line 3) cannot be in the premises.

And follow this rule.