a : $\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\exists C[(A\ C) \wedge (B\ C)]$

and : $\blacksquare\forall f((?\blacksquare Sf\backslash[\,]^{-1}[\,]^{-1}Sf)/\blacksquare Sf) : (\Phi^{n+}\ 0\ and)$

and : $\blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[\,]^{-1}[\,]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)) : (\Phi^{n+}\ (s\ 0)\ and)$

believes : $\square((\langle\rangle\exists gNt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)) : {}^\wedge\lambda A\lambda B(Pres\ (({}^\vee believe\ A)\ B))$

bill : $\blacksquare Nt(s(m)) : b$

catch : $\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : {}^\wedge\lambda A\lambda B(({}^\vee catch\ A)\ B)$

doesnt : $\blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg) : \lambda A\neg(A\ \lambda B\lambda C(B\ C))$

eat : $\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : {}^\wedge\lambda A\lambda B(({}^\vee eat\ A)\ B)$

every : $\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C)\rightarrow(B\ C)]$

finds : $\square((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa) : {}^\wedge\lambda A\lambda B(Pres\ (({}^\vee find\ A)\ B))$

fish : $\square CNs(n) : fish$

he : $\blacksquare[\,]^{-1}\forall g((\blacksquare Sg|\blacksquare Nt(s(m)))/(\langle\rangle Nt(s(m))\backslash Sg)) : \lambda AA$

her : $\blacksquare\forall g\forall a(((\langle\rangle Na\backslash Sg)\uparrow\blacksquare Nt(s(f)))\downarrow(\blacksquare(\langle\rangle Na\backslash Sg)|\blacksquare Nt(s(f)))) : \lambda AA$

in : $\square(\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists aNa) : {}^\wedge\lambda A\lambda B\lambda C(({}^\vee in\ A)\ (B\ C))$

is : $\blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))) : \lambda A\lambda B(Pres\ (A \rightarrow C.[B = C]; D.((D\ \lambda E[E = B])\ B)))$

it : $\blacksquare\forall f\forall a(((\langle\rangle Na\backslash Sf)\uparrow\blacksquare Nt(s(n)))\downarrow(\blacksquare(\langle\rangle Na\backslash Sf)|\blacksquare Nt(s(n)))) : \lambda AA$

it : $\blacksquare[\,]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf)) : \lambda AA$

john : $\blacksquare Nt(s(m)) : j$

loses : $\square((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa) : {}^\wedge\lambda A\lambda B(Pres\ (({}^\vee lose\ A)\ B))$

loves : $\square((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa) : {}^\wedge\lambda A\lambda B(Pres\ (({}^\vee love\ A)\ B))$

man : $\square CNs(m) : man$

necessarily : $\blacksquare(SA/\square SA) : Nec$

or : $\blacksquare\forall f((?\blacksquare Sf\backslash[\,]^{-1}[\,]^{-1}Sf)/\blacksquare Sf) : (\Phi^{n+}\ 0\ or)$

or : $\blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[\,]^{-1}[\,]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)) : (\Phi^{n+}\ (s\ 0)\ or)$

or : $\blacksquare\forall f((?\blacksquare(Sf/(\langle\rangle\exists gNt(s(g))\backslash Sf))\backslash[\,]^{-1}[\,]^{-1}(Sf/(\langle\rangle\exists gNt(s(g))\backslash Sf)))/\blacksquare(Sf/(\langle\rangle\exists gNt(s(g))\backslash Sf))) : (\Phi^{n+}\ (s\ 0)\ or)$

park : $\square CNs(n) : park$

seeks : $\square((\langle\rangle\exists gNt(s(g))\backslash Sf)/\square\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))) : {}^\wedge\lambda A\lambda B(({}^\vee tries\ {}^\wedge(({}^\vee A\ {}^\vee find)\ B))\ B)$

she : $\blacksquare[\,]^{-1}\forall g((\blacksquare Sg|\blacksquare Nt(s(f)))/(\langle\rangle Nt(s(f))\backslash Sg)) : \lambda AA$

slowly : $\square\forall a\forall f(\square(\langle\rangle Na\backslash Sf)\backslash(\langle\rangle\square Na\backslash Sf)) : {}^\wedge\lambda A\lambda B({}^\vee slowly\ {}^\wedge({}^\vee A\ {}^\vee B))$

such+that : $\blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))) : \lambda A\lambda B\lambda C[(B\ C)\wedge(A\ C)]$

talks : $\square(\langle\rangle\exists gNt(s(g))\backslash Sf) : {}^\wedge\lambda A(Pres\ ({}^\vee talk\ A))$

that : $\blacksquare(CPthat/\square Sf) : \lambda AA$

the : $\blacksquare\forall n(Nt(n)/CNn) : \iota$

to : $\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))) : \lambda AA$

tries : $\square((\langle\rangle\exists gNt(s(g))\backslash Sf)/\square(\langle\rangle\exists gNt(s(g))\backslash Si)) : {}^\wedge\lambda A\lambda B(({}^\vee tries\ {}^\wedge({}^\vee A\ B))\ B)$

unicorn : $\square CNs(n) : unicorn$

walk : $\square(\langle\rangle\exists aNa\backslash Sb) : {}^\wedge\lambda A({}^\vee walk\ A)$

walks : $\square(\langle\rangle\exists gNt(s(g))\backslash Sf) : {}^\wedge\lambda A(Pres\ ({}^\vee walk\ A))$

woman : $\square CNs(f) : woman$

(dwp((7-7))) [**john**]+**walks** : Sf

$[\blacksquare Nt(s(m)) : j], \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : {}^\wedge\lambda A(Pres\ ({}^\vee walk\ A)) \Rightarrow Sf$

$$\dfrac{\boxed{Nt(s(m))} \Rightarrow Nt(s(m))}{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}\ \blacksquare L$$

$$\dfrac{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists g Nt(s(g))}}\ \exists R$$

$$\dfrac{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists g Nt(s(g))}}{[\blacksquare Nt(s(m))] \Rightarrow \boxed{\langle\rangle \exists g Nt(s(g))}}\ \langle\rangle R$$

$$\dfrac{[\blacksquare Nt(s(m))] \Rightarrow \boxed{\langle\rangle \exists g Nt(s(g))} \qquad \boxed{Sf} \Rightarrow Sf}{[\blacksquare Nt(s(m))], \boxed{\langle\rangle \exists g Nt(s(g)) \backslash Sf} \Rightarrow Sf}\ \backslash L$$

$$\dfrac{[\blacksquare Nt(s(m))], \boxed{\langle\rangle \exists g Nt(s(g)) \backslash Sf} \Rightarrow Sf}{[\blacksquare Nt(s(m))], \boxed{\Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf)} \Rightarrow Sf}\ \Box L$$

(*Pres* (ˇ*walk j*))

(dwp((7-16))) [**every**+**man**]+**talks** : Sf

$[\blacksquare \forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \to (B\ C)], \Box CNs(m) : man], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) : \hat{}\lambda D(Pres\ (\check{}talk\ D)) \Rightarrow Sf$

$$\dfrac{Nt(s(m)) \Rightarrow Nt(s(m))}{Nt(s(m)) \Rightarrow \boxed{\exists g Nt(s(g))}}\ \exists R$$

$$\dfrac{Nt(s(m)) \Rightarrow \boxed{\exists g Nt(s(g))}}{[Nt(s(m))] \Rightarrow \boxed{\langle\rangle \exists g Nt(s(g))}}\ \langle\rangle R$$

$$\dfrac{[Nt(s(m))] \Rightarrow \boxed{\langle\rangle \exists g Nt(s(g))} \qquad \boxed{Sf} \Rightarrow Sf}{[Nt(s(m))], \boxed{\langle\rangle \exists g Nt(s(g)) \backslash Sf} \Rightarrow Sf}\ \backslash L$$

$$\dfrac{[Nt(s(m))], \boxed{\langle\rangle \exists g Nt(s(g)) \backslash Sf} \Rightarrow Sf}{[Nt(s(m))], \boxed{\Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf)} \Rightarrow Sf}\ \Box L$$

$$\dfrac{[Nt(s(m))], \boxed{\Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf)} \Rightarrow Sf}{[1], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf\uparrow Nt(s(m))}\ \uparrow R$$

$$\dfrac{[1], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf\uparrow Nt(s(m)) \qquad \boxed{Sf} \Rightarrow Sf}{[\boxed{(Sf\uparrow Nt(s(m)))\downarrow Sf}], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}\ \downarrow L$$

$$\dfrac{[\boxed{(Sf\uparrow Nt(s(m)))\downarrow Sf}], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}{[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)}], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}\ \forall L$$

$$\dfrac{\boxed{CNs(m)} \Rightarrow CNs(m)}{\boxed{\Box CNs(m)} \Rightarrow CNs(m)}\ \Box L$$

$$\dfrac{\boxed{\Box CNs(m)} \Rightarrow CNs(m) \qquad [\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)}], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}{[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)/CNs(m)}, \Box CNs(m)], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}\ /L$$

$$\dfrac{[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)/CNs(m)}, \Box CNs(m)], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}{[\boxed{\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m)], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}\ \forall L$$

$$\dfrac{[\boxed{\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m)], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}{[\boxed{\blacksquare \forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m)], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf}\ \blacksquare L$$

$\forall C[(\check{}man\ C) \to (Pres\ (\check{}talk\ C))]$

(dwp((7-19))) [**the**+**fish**]+**walks** : Sf

$[\blacksquare \forall n(Nt(n)/CNn) : \iota, \Box CNs(n) : fish], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) : \hat{}\lambda A(Pres\ (\check{}walk\ A)) \Rightarrow Sf$

$$\dfrac{\boxed{CNs(n)} \Rightarrow CNs(n)}{\boxed{\Box CNs(n)} \Rightarrow CNs(n)}\ \Box L$$

$$\dfrac{\boxed{\Box CNs(n)} \Rightarrow CNs(n) \qquad \boxed{Nt(s(n))} \Rightarrow Nt(s(n))}{\boxed{Nt(s(n))/CNs(n)}, \Box CNs(n) \Rightarrow Nt(s(n))}\ /L$$

$$\dfrac{\boxed{Nt(s(n))/CNs(n)}, \Box CNs(n) \Rightarrow Nt(s(n))}{\boxed{\forall n(Nt(n)/CNn)}, \Box CNs(n) \Rightarrow Nt(s(n))}\ \forall L$$

$$\dfrac{\boxed{\forall n(Nt(n)/CNn)}, \Box CNs(n) \Rightarrow Nt(s(n))}{\boxed{\blacksquare \forall n(Nt(n)/CNn)}, \Box CNs(n) \Rightarrow Nt(s(n))}\ \blacksquare L$$

$$\dfrac{\boxed{\blacksquare \forall n(Nt(n)/CNn)}, \Box CNs(n) \Rightarrow Nt(s(n))}{\blacksquare \forall n(Nt(n)/CNn), \Box CNs(n) \Rightarrow \boxed{\exists g Nt(s(g))}}\ \exists R$$

$$\dfrac{\blacksquare \forall n(Nt(n)/CNn), \Box CNs(n) \Rightarrow \boxed{\exists g Nt(s(g))}}{[\blacksquare \forall n(Nt(n)/CNn), \Box CNs(n)] \Rightarrow \boxed{\langle\rangle \exists g Nt(s(g))}}\ \langle\rangle R$$

$$\dfrac{[\blacksquare \forall n(Nt(n)/CNn), \Box CNs(n)] \Rightarrow \boxed{\langle\rangle \exists g Nt(s(g))} \qquad \boxed{Sf} \Rightarrow Sf}{[\blacksquare \forall n(Nt(n)/CNn), \Box CNs(n)], \boxed{\langle\rangle \exists g Nt(s(g)) \backslash Sf} \Rightarrow Sf}\ \backslash L$$

$$\dfrac{[\blacksquare \forall n(Nt(n)/CNn), \Box CNs(n)], \boxed{\langle\rangle \exists g Nt(s(g)) \backslash Sf} \Rightarrow Sf}{[\blacksquare \forall n(Nt(n)/CNn), \Box CNs(n)], \boxed{\Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf)} \Rightarrow Sf}\ \Box L$$

(*Pres* (ˇ*walk* (ι ˇ*fish*)))

(dwp((7-32))) **[every+man]+[[walks+or+talks]]** : Sf

$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \to (B\ C)], \square CNs(m) : man], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda D(Pres\ (\check{}walk\ D)), \blacksquare\forall f((?\blacksquare Sf\backslash[]^{-1}[]^{-1}Sf)/\blacksquare Sf) :$
$(\Phi^{n+}\ 0\ or), \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda E(Pres\ (\check{}talk\ E))]] \Rightarrow Sf$

$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \to (B\ C)], \square CNs(m) : man], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda D(Pres\ (\check{}walk\ D)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}($
$(\Phi^{n+}\ (s\ 0)\ or), \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda E(Pres\ (\check{}talk\ E))]] \Rightarrow Sf$

$$Nt(s(m)) \Rightarrow Nt(s(m))$$
$$\exists R:\quad Nt(s(m)) \Rightarrow \boxed{\exists gNt(s(g))}$$
$$\langle\rangle R:\quad [Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists gNt(s(g))} \qquad \boxed{Sf} \Rightarrow Sf$$
$$\backslash L:\quad [Nt(s(m))], \boxed{\langle\rangle\exists gNt(s(g))\backslash Sf} \Rightarrow Sf$$
$$\square L:\quad [Nt(s(m))], \boxed{\square(\langle\rangle\exists gNt(s(g))\backslash Sf)} \Rightarrow Sf$$
$$\langle\rangle L:\quad \langle\rangle Nt(s(m)), \square(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow Sf$$
$$\backslash R:\quad \square(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow \langle\rangle Nt(s(m))\backslash Sf$$
$$\blacksquare R:\quad \square(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow \blacksquare(\langle\rangle Nt(s(m))\backslash Sf)$$

$$Nt(s(m)) \Rightarrow Nt(s(m))$$
$$\exists R:\quad Nt(s(m)) \Rightarrow \boxed{\exists gNt(s(g))}$$
$$\langle\rangle R:\quad [Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists gNt(s(g))} \qquad \boxed{Sf} \Rightarrow Sf$$
$$\backslash L:\quad [Nt(s(m))], \boxed{\langle\rangle\exists gNt(s(g))\backslash Sf} \Rightarrow Sf$$
$$\square L:\quad [Nt(s(m))], \boxed{\square(\langle\rangle\exists gNt(s(g))\backslash Sf)} \Rightarrow Sf$$
$$\langle\rangle L:\quad \langle\rangle Nt(s(m)), \square(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow Sf$$
$$\backslash R:\quad \square(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow \langle\rangle Nt(s(m))\backslash Sf$$
$$\blacksquare R:\quad \square(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow \blacksquare(\langle\rangle Nt(s(m))\backslash Sf)$$
$$?R:\quad \square(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow \boxed{?\blacksquare(\langle\rangle Nt(s(m))\backslash Sf)}$$

$$Nt(s(m)) \Rightarrow$$
$$[Nt(s(m))] \Rightarrow$$
$$[Nt(s(m))],$$
$$[Nt(s(m))], [\boxed{[]}$$
$$[Nt(s(m))], [[\boxed{[]^{-1}}$$

$$[Nt(s(m))], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{?\blacksquare(\langle\rangle Nt(s(m))\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle}$$
$$[Nt(s(m))], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{(?\blacksquare(\langle\rangle Nt(s(m))\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Nt(s(m))\backslash Sf))/\blacksquare(\langle\rangle Nt(s(m))\backslash Sf)}, \square(\langle\rangle\exists gNt(s(g$$
$$[Nt(s(m))], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{\forall f((?\blacksquare(\langle\rangle Nt(s(m))\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Nt(s(m))\backslash Sf))/\blacksquare(\langle\rangle Nt(s(m))\backslash Sf))}, \square(\langle\rangle\exists gNt($$
$$[Nt(s(m))], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf))}, \square(\langle\rangle\exists gNt(s(g))\backslash Sf$$
$$[Nt(s(m))], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{\blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf))}, \square(\langle\rangle\exists gNt(s(g))\backslash S$$
$$[1], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)), \square(\langle\rangle\exists gNt(s(g))\backslash Sf)]] \Rightarrow S$$
$$[\boxed{(Sf\uparrow Nt(s(m)))\downarrow Sf}], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na$$
$$[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)}], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle$$

$$\boxed{CNs(m)} \Rightarrow CNs(m)$$
$$\square L:\quad \boxed{\square CNs(m)} \Rightarrow CNs(m)$$

$$[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)/CNs(m)}, \square CNs(m)], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)), \square(\langle\rangle\exists gNt(s$$
$$[\boxed{\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs(m)], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)), \square(\langle\rangle\exists gNt($$
$$[\boxed{\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs(m)], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)), \square(\langle\rangle\exists gNt$$

$\forall C[(\check{}man\ C) \to [(Pres\ (\check{}walk\ C)) \vee (Pres\ (\check{}talk\ C))]]$

$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \to (B\ C)], \square CNs(m) : man], [[\square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda D(Pres\ (\check{}walk\ D)), \blacksquare\forall f((?\blacksquare(Sf/(\langle\rangle\exists gNt(s(g))\backslash Sf)$
$(\Phi^{n+}\ (s\ 0)\ or), \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda E(Pres\ (\check{}talk\ E))]] \Rightarrow Sf$

(dwp((7-34))) **[[[every+man]+walks+or+[every+man]+talks]]** : Sf

$[[[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \to (B\ C)], \square CNs(m) : man], \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda D(Pres\ (\check{}walk\ D)), \blacksquare\forall f((?\blacksquare Sf\backslash[]^{-1}[]^{-1}Sf)/\blacksquare Sf) :$
$(\Phi^{n+}\ 0\ or), [\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda E\lambda F\forall G[(E\ G) \to (F\ G)], \square CNs(m) : man], \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda H(Pres\ (\check{}talk\ H))]] \Rightarrow$
Sf

$$\dfrac{\dfrac{\dfrac{\dfrac{Nt(s(m)) \Rightarrow Nt(s(m))}{Nt(s(m)) \Rightarrow \boxed{\exists g Nt(s(g))}}\exists R}{[Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists g Nt(s(g))}}\langle\rangle R \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}}{[Nt(s(m))], \boxed{\langle\rangle\exists g Nt(s(g))\backslash Sf} \Rightarrow Sf}\backslash L}{[Nt(s(m))], \boxed{\square(\langle\rangle\exists g Nt(s(g))\backslash Sf)} \Rightarrow Sf}\square L$$

$$[1], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf{\uparrow}Nt(s(m)) \quad \uparrow R \qquad \boxed{Sf} \Rightarrow Sf$$

$$[\boxed{(Sf{\uparrow}Nt(s(m))){\downarrow}Sf}], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf \quad \downarrow L$$

$$[\boxed{\forall f((Sf{\uparrow}Nt(s(m))){\downarrow}Sf)}], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf \quad \forall L$$

$$\dfrac{\dfrac{}{\boxed{CNs(m)} \Rightarrow CNs(m)}}{\boxed{\square CNs(m)} \Rightarrow CNs(m)}\square L$$

$$[\boxed{\forall f((Sf{\uparrow}Nt(s(m))){\downarrow}Sf)/CNs(m)}, \square CNs(m)], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf \quad /L$$

$$[\boxed{\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g))}, \square CNs(m)], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf \quad \forall L$$

$$[\boxed{\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g))}, \square CNs(m)], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf \quad \blacksquare L$$

$$[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)), \square CNs(m)], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow \blacksquare Sf \quad \blacksquare R$$

$$Nt(s(m)) \Rightarrow Nt(s($$

$$Nt(s(m)) \Rightarrow \boxed{\exists g Nt(s$$

$$[Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists g N$$

$$[Nt(s(m))], \boxed{\langle\rangle\exists g$$

$$[Nt(s(m))], \boxed{\square(\langle\rangle\exists g$$

$$[1], \square(\langle\rangle\exists g Nt(s(g))$$

$$\dfrac{}{\boxed{CNs(m)} \Rightarrow CNs(m)} \quad \dfrac{}{\boxed{\square CNs(m)} \Rightarrow CNs(m)}\square L \qquad [\boxed{(Sf{\uparrow}Nt(s(n}$$

$$[\boxed{\forall f((Sf{\uparrow}Nt(s$$

$$[\boxed{\forall f((Sf{\uparrow}Nt(s(m))){\downarrow}Sf)/CNs(m)}, \square CNs(m$$

$$[\boxed{\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g))}, \square CNs($$

$$[\boxed{\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g))}, \square CNs($$

$$[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)), \square CNs(m$$

$$[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)), \square CNs(m)]$$

$$[[[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)$$

$$[[[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)), \square CNs(m)], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf), \boxed{(?\blacksquare Sf\backslash[]^{-1}[]^{-1}Sf)/\blacksquare Sf}, [\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs($$

$$[[[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)), \square CNs(m)], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf), \boxed{\forall f((?\blacksquare Sf\backslash[]^{-1}[]^{-1}Sf)/\blacksquare Sf)}, [\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CN$$

$$[[[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)), \square CNs(m)], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf), \boxed{\blacksquare\forall f((?\blacksquare Sf\backslash[]^{-1}[]^{-1}Sf)/\blacksquare Sf)}, [\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/C$$

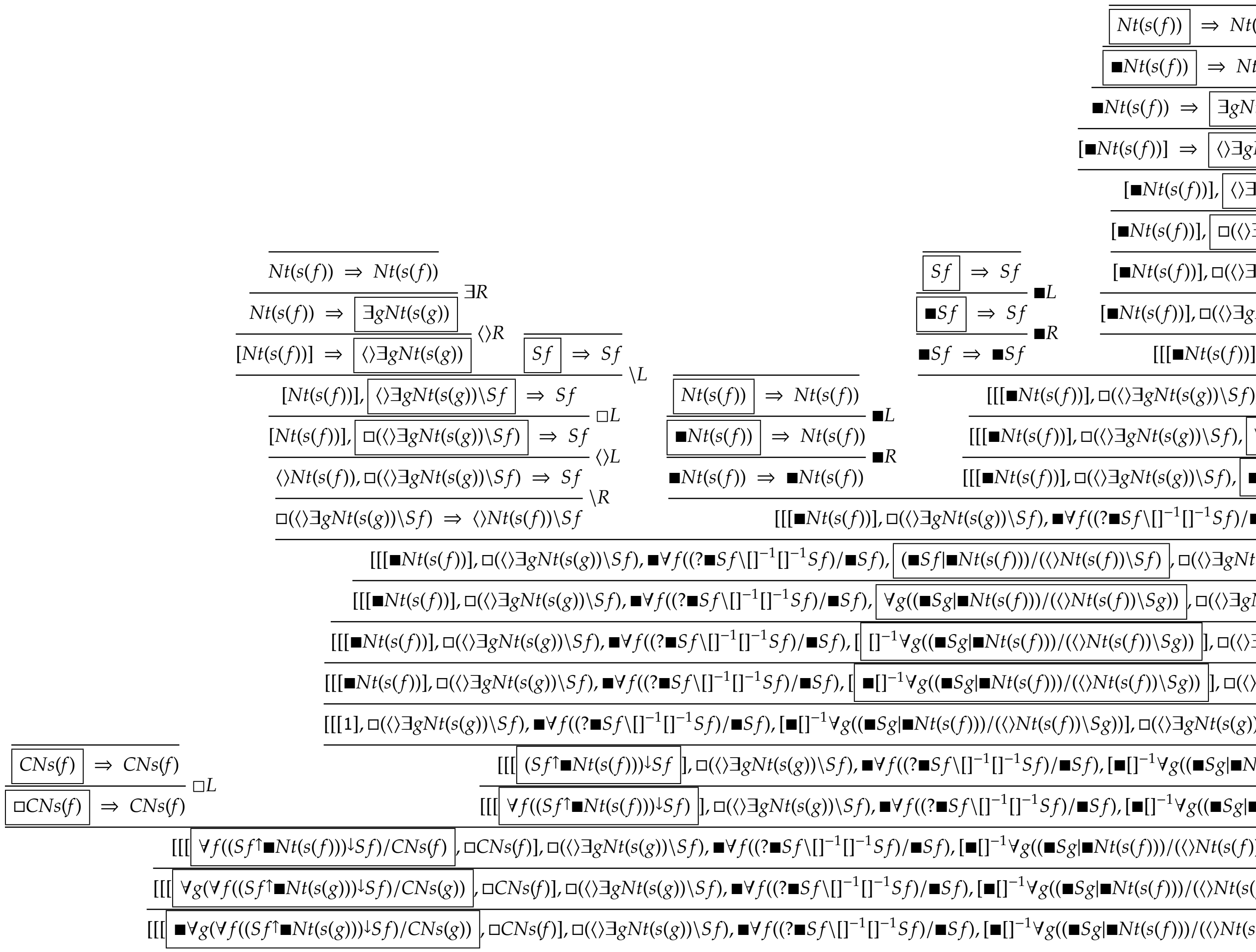
$[\forall H[(\check{}man\ H) \to (Pres\ (\check{}walk\ H))] \vee \forall C[(\check{}man\ C) \to (Pres\ (\check{}talk\ C))]]$

$[[[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\,C) \to (B\,C)], \square CNs(m) : man], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda D(Pres\,(\check{}walk\,D)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}($
$(\Phi^{n^+}\ (s\,0)\ or), [\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)) : \lambda E\lambda F\forall G[(E\,G) \to (F\,G)], \square CNs(m) : man], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda H(Pres\,(\check{}talk\,H))]] \Rightarrow$
Sf

$[[[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\,C) \to (B\,C)], \square CNs(m) : man], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda D(Pres\,(\check{}walk\,D)), \blacksquare\forall f((?\blacksquare(Sf/(\langle\rangle\exists g Nt(s(g))\backslash Sf)$
$(\Phi^{n^+}\ (s\,0)\ or), [\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)) : \lambda E\lambda F\forall G[(E\,G) \to (F\,G)], \square CNs(m) : man], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda H(Pres\,(\check{}talk\,H))]] \Rightarrow$
Sf

(dwp((7-39))) [[[**a+woman**]+**walks+and+**[**she**]+**talks**]] : Sf

$[[[\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)) : \lambda A\lambda B\exists C[(A\,C)\wedge(B\,C)], \square CNs(f) : woman], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda D(Pres\,(\check{}walk\,D)), \blacksquare\forall f((?\blacksquare Sf\backslash[]^{-1}[]^{-1}Sf)/\blacksquare Sf)$
$(\Phi^{n^+}\ 0\ and), [\blacksquare[]^{-1}\forall g((\blacksquare Sg|\blacksquare Nt(s(f)))/(\langle\rangle Nt(s(f))\backslash Sg)) : \lambda EE], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda F(Pres\,(\check{}talk\,F))]] \Rightarrow Sf$



$\exists C[(\breve{~}woman\ C) \wedge [(Pres\ (\breve{~}walk\ C)) \wedge (Pres\ (\breve{~}talk\ C))]]$

$[[[\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)) : \lambda A\lambda B\exists C[(A\ C)\wedge(B\ C)], \square CNs(f) : woman], \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{~}\lambda D(Pres\ (\breve{~}walk\ D)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}$ $(\Phi^{n+}\ (s\ 0)\ and), [\blacksquare[]^{-1}\forall g((\blacksquare Sg|\blacksquare Nt(s(f)))/(\langle\rangle Nt(s(f))\backslash Sg)) : \lambda EE], \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{~}\lambda F(Pres\ (\breve{~}talk\ F))]] \Rightarrow Sf$

(dwp((7-43, 45))) **[john]+believes+that+[a+fish]+walks** : Sf

$[\blacksquare Nt(s(m)) : j], \square((\langle\rangle\exists gNt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)) : \hat{~}\lambda A\lambda B(Pres\ ((\breve{~}believe\ A)\ B)), \blacksquare(CPthat/\square Sf) : \lambda CC, [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)) :$ $\lambda D\lambda E\exists F[(D\ F) \wedge (E\ F)], \square CNs(n) : fish], \square(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{~}\lambda G(Pres\ (\breve{~}walk\ G)) \Rightarrow Sf$

$$\boxed{Nt(s(n))} \Rightarrow Nt(s(n))$$

$$\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n)) \quad \blacksquare L$$

$$\blacksquare Nt(s(n)) \Rightarrow \boxed{\exists g Nt(s(g))} \quad \exists R$$

$$[\blacksquare Nt(s(n))] \Rightarrow \boxed{\langle\rangle \exists g Nt(s(g))} \quad \langle\rangle R \qquad \boxed{Sf} \Rightarrow Sf$$

$$[\blacksquare Nt(s(n))], \boxed{\langle\rangle \exists g Nt(s(g))\backslash Sf} \Rightarrow Sf \quad \backslash L$$

$$[\blacksquare Nt(s(n))], \boxed{\square(\langle\rangle \exists g Nt(s(g))\backslash Sf)} \Rightarrow Sf \quad \square L$$

$$[\blacksquare Nt(s(n))], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow \square Sf \quad \square R \qquad \boxed{CPthat} \Rightarrow CPthat$$

$$\boxed{CPthat/\square Sf}, [\blacksquare Nt(s(n))], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat \quad /L$$

$$\boxed{\blacksquare(CPthat/\square Sf)}, [\blacksquare Nt(s(n))], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat \quad \blacksquare L$$

$$\blacksquare(CPthat/\square Sf), [\blacksquare Nt(s(n))], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow \boxed{CPthat \sqcup \square Sf} \quad \sqcup R$$

$$\boxed{Nt(s(m))} \Rightarrow Nt(s(m))$$

$$\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m)) \quad \blacksquare L$$

$$\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists g Nt(s(g))} \quad \exists R$$

$$[\blacksquare Nt(s(m))] \Rightarrow \boxed{\langle\rangle \exists g Nt(s(g))} \quad \langle\rangle R \qquad \boxed{Sf} \Rightarrow$$

$$[\blacksquare Nt(s(m))], \boxed{\langle\rangle \exists g Nt(s(g))\backslash Sf} \Rightarrow Sf$$

$$[\blacksquare Nt(s(m))], \boxed{(\langle\rangle \exists g Nt(s(g))\backslash Sf)/(CPthat \sqcup \square Sf)}, \blacksquare(CPthat/\square Sf), [\blacksquare Nt(s(n))], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$

$$[\blacksquare Nt(s(m))], \boxed{\square((\langle\rangle \exists g Nt(s(g))\backslash Sf)/(CPthat \sqcup \square Sf))}, \blacksquare(CPthat/\square Sf), [\blacksquare Nt(s(n))], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow Sf \quad \square L$$

$$[\blacksquare Nt(s(m))], \square((\langle\rangle \exists g Nt(s(g))\backslash Sf)/(CPthat \sqcup \square Sf)), \blacksquare(CPthat/\square Sf), [1], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow Sf\uparrow\blacksquare Nt(s(n)) \quad \uparrow R$$

$$\boxed{CNs(n)} \Rightarrow CNs(n)$$

$$\boxed{\square CNs(n)} \Rightarrow CNs(n) \quad \square L$$

$$[\blacksquare Nt(s(m))], \square((\langle\rangle \exists g Nt(s(g))\backslash Sf)/(CPthat \sqcup \square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{(Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf}], \square(\langle\rangle \exists g Nt(s(g)$$

$$[\blacksquare Nt(s(m))], \square((\langle\rangle \exists g Nt(s(g))\backslash Sf)/(CPthat \sqcup \square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{\forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)}], \square(\langle\rangle \exists g Nt($$

$$[\blacksquare Nt(s(m))], \square((\langle\rangle \exists g Nt(s(g))\backslash Sf)/(CPthat \sqcup \square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{\forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs(n)}, \square CNs(n)], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$

$$[\blacksquare Nt(s(m))], \square((\langle\rangle \exists g Nt(s(g))\backslash Sf)/(CPthat \sqcup \square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs(n)], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow S$$

$$[\blacksquare Nt(s(m))], \square((\langle\rangle \exists g Nt(s(g))\backslash Sf)/(CPthat \sqcup \square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs(n)], \square(\langle\rangle \exists g Nt(s(g))\backslash Sf) \Rightarrow$$

$\exists C[(\check{}\mathit{fish}\ C) \wedge (\mathit{Pres}\ ((\check{}\mathit{believe}\ \hat{}(\mathit{Pres}\ (\check{}\mathit{walk}\ C)))\ j))]$

$$Nt(s(n)) \Rightarrow Nt(s(n))$$
$\blacksquare L$
$$\blacksquare Nt(s(n)) \Rightarrow Nt(s(n))$$
$\exists R$
$$\blacksquare Nt(s(n)) \Rightarrow \exists g Nt(s(g))$$
$\langle\rangle R$
$$[\blacksquare Nt(s(n))] \Rightarrow \langle\rangle\exists g Nt(s(g)) \qquad Sf \Rightarrow Sf$$
$\backslash L$
$$[\blacksquare Nt(s(n))], \langle\rangle\exists g Nt(s(g))\backslash Sf \Rightarrow Sf$$
$\Box L$
$$[\blacksquare Nt(s(n))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$\uparrow R$
$$[1], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf{\uparrow}\blacksquare Nt(s(n)) \qquad Sf \Rightarrow Sf$$
$\downarrow L$
$$[(Sf{\uparrow}\blacksquare Nt(s(n))){\downarrow}Sf], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$\forall L$
$$CNs(n) \Rightarrow CNs(n)$$
$\Box L$
$$\Box CNs(n) \Rightarrow CNs(n) \qquad [\forall f((Sf{\uparrow}\blacksquare Nt(s(n))){\downarrow}Sf)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$/L$
$$[\forall f((Sf{\uparrow}\blacksquare Nt(s(n))){\downarrow}Sf)/CNs(n), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$\forall L$
$$[\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$\blacksquare L$
$$[\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$\Box R$
$$[\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow \Box Sf \qquad CPthat \Rightarrow CPthat$$
$/L$
$$CPthat/\Box Sf, [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat$$
$\blacksquare L$
$$\blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat$$
$\sqcup R$
$$\blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat\sqcup\Box Sf$$

$$Nt(s(m)) \Rightarrow Nt(s(m$$
$$\blacksquare Nt(s(m)) \Rightarrow Nt(s(m$$
$$\blacksquare Nt(s(m)) \Rightarrow \exists g Nt(s(g$$
$$[\blacksquare Nt(s(m))] \Rightarrow \langle\rangle\exists g Nt(s$$
$$[\blacksquare Nt(s(m))], \langle\rangle\exists g Nt$$

$$[\blacksquare Nt(s(m))], (\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf), \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf$$
$$[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash S$$

(*Pres* ((ˇ*believe* ˆ∃*F*[(ˇ*fish F*) ∧ (*Pres* (ˇ*walk F*))]) *j*))

(dwp((7-48, 49, 52))) [**every**+**man**]+**believes**+**that**+[**a**+**fish**]+**walks** : Sf

$[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g))$: $\lambda A\lambda B\forall C[(A\ C) \to (B\ C)]$, $\Box CNs(m)$: *man*], $\Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf))$: ˆ$\lambda D\lambda E$(*Pres* ((ˇ*believe* D) E)), $\blacksquare(CPthat/\Box Sf)$: λFF, $[\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g))$: $\lambda G\lambda H\exists I[(G\ I) \wedge (H\ I)]$, $\Box CNs(n)$: *fish*], $\Box(\langle\rangle\exists g Nt(s(g))\backslash Sf)$: ˆλJ(*Pres* (ˇ*walk* J)) $\Rightarrow$ Sf

$$Nt(s(n)) \Rightarrow Nt(s(n))$$

$$\blacksquare Nt(s(n)) \Rightarrow Nt(s(n)) \quad \blacksquare L$$

$$\blacksquare Nt(s(n)) \Rightarrow \exists g Nt(s(g)) \quad \exists R$$

$$[\blacksquare Nt(s(n))] \Rightarrow \langle\rangle \exists g Nt(s(g)) \quad \langle\rangle R \qquad Sf \Rightarrow Sf$$

$$[\blacksquare Nt(s(n))], \langle\rangle \exists g Nt(s(g)) \backslash Sf \Rightarrow Sf \quad \backslash L$$

$$[\blacksquare Nt(s(n))], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow Sf \quad \Box L$$

$$[\blacksquare Nt(s(n))], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow \Box Sf \quad \Box R \qquad CPthat \Rightarrow CPthat \qquad Nt(s(m)) \Rightarrow$$

$$CPthat/\Box Sf, [\blacksquare Nt(s(n))], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow CPthat \quad /L \qquad Nt(s(m)) \Rightarrow$$

$$\blacksquare(CPthat/\Box Sf), [\blacksquare Nt(s(n))], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow CPthat \quad \blacksquare L \qquad [Nt(s(m))] \Rightarrow$$

$$\blacksquare(CPthat/\Box Sf), [\blacksquare Nt(s(n))], \Box(\langle\rangle \exists g Nt(s(g)) \backslash Sf) \Rightarrow CPthat \sqcup \Box Sf \quad \sqcup R \qquad [Nt(s(m)$$

$$[Nt(s(m))], (\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf), \blacksquare(CPthat/\Box Sf), [\blacksquare Nt(s(n))], \Box(\langle\rangle \exists$$

$$[Nt(s(m))], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare Nt(s(n))], \Box(\langle\rangle$$

$$[1], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare Nt(s(n))], \Box(\langle\rangle \exists g Nt(s(g)$$

$$CNs(m) \Rightarrow CNs(m) \qquad [(Sf \uparrow Nt(s(m))) \downarrow Sf], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf$$

$$\Box CNs(m) \Rightarrow CNs(m) \quad \Box L \qquad [\forall f((Sf \uparrow Nt(s(m))) \downarrow Sf)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box$$

$$[\forall f((Sf \uparrow Nt(s(m))) \downarrow Sf)/CNs(m), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare Nt(s(n))]$$

$$[\forall g(\forall f((Sf \uparrow Nt(s(g))) \downarrow Sf)/CNs(g)), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare Nt(s(n)$$

$$[\blacksquare \forall g(\forall f((Sf \uparrow Nt(s(g))) \downarrow Sf)/CNs(g)), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare Nt(s(n$$

$$[\blacksquare \forall g(\forall f((Sf \uparrow Nt(s(g))) \downarrow Sf)/CNs(g)), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [1], \Box((\langle\rangle \exists g$$

$$CNs(n) \Rightarrow CNs(n) \qquad [\blacksquare \forall g(\forall f((Sf \uparrow Nt(s(g))) \downarrow Sf)/CNs(g)), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box$$

$$\Box CNs(n) \Rightarrow CNs(n) \quad \Box L \qquad [\blacksquare \forall g(\forall f((Sf \uparrow Nt(s(g))) \downarrow Sf)/CNs(g)), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf$$

$$[\blacksquare \forall g(\forall f((Sf \uparrow Nt(s(g))) \downarrow Sf)/CNs(g)), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [\forall f((Sf \uparrow \blacksquare Nt(s(n))) \downarrow Sf)/CNs(n),$$

$$[\blacksquare \forall g(\forall f((Sf \uparrow Nt(s(g))) \downarrow Sf)/CNs(g)), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [\forall g(\forall f((Sf \uparrow \blacksquare Nt(s(g))) \downarrow Sf)/CNs(g)$$

$$[\blacksquare \forall g(\forall f((Sf \uparrow Nt(s(g))) \downarrow Sf)/CNs(g)), \Box CNs(m)], \Box((\langle\rangle \exists g Nt(s(g)) \backslash Sf)/(CPthat \sqcup \Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare \forall g(\forall f((Sf \uparrow \blacksquare Nt(s(g))) \downarrow Sf)/CNs(g$$

$\exists C[(\check{}fish\ C) \wedge \forall G[(\check{}man\ G) \rightarrow (Pres\ ((\check{}believe\ \hat{}(Pres\ (\check{}walk\ C)))\ G))]]$

$$\boxed{Nt(s(n))} \Rightarrow Nt(s(n))$$
$$\blacksquare L$$
$$\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))$$
$$\exists R$$
$$\blacksquare Nt(s(n)) \Rightarrow \boxed{\exists g Nt(s(g))}$$
$$\langle\rangle R$$
$$[\blacksquare Nt(s(n))] \Rightarrow \boxed{\langle\rangle\exists g Nt(s(g))} \qquad \boxed{Sf} \Rightarrow Sf$$
$$\backslash L$$
$$[\blacksquare Nt(s(n))], \boxed{\langle\rangle\exists g Nt(s(g))\backslash Sf} \Rightarrow Sf$$
$$\square L$$
$$[\blacksquare Nt(s(n))], \boxed{\square(\langle\rangle\exists g Nt(s(g))\backslash Sf)} \Rightarrow Sf$$
$$\square R$$
$$[\blacksquare Nt(s(n))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow \square Sf \qquad \boxed{CPthat} \Rightarrow CPthat \qquad Nt(s(m)) \Rightarrow$$
$$/L$$
$$\boxed{CPthat/\square Sf}, [\blacksquare Nt(s(n))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat \qquad Nt(s(m)) \Rightarrow$$
$$\blacksquare L$$
$$\boxed{\blacksquare(CPthat/\square Sf)}, [\blacksquare Nt(s(n))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat \qquad [Nt(s(m))] \Rightarrow$$
$$\sqcup R$$
$$\blacksquare(CPthat/\square Sf), [\blacksquare Nt(s(n))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow \boxed{CPthat\sqcup\square Sf} \qquad [Nt(s(m)$$
$$[Nt(s(m))], \boxed{(\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)}, \blacksquare(CPthat/\square Sf), [\blacksquare Nt(s(n))], \square(\langle\rangle\exists$$
$$[Nt(s(m))], \boxed{\square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf))}, \blacksquare(CPthat/\square Sf), [\blacksquare Nt(s(n))], \square(\langle\rangle$$
$$[Nt(s(m))], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [1], \square(\langle\rangle\exists g Nt(s(g))$$
$$\boxed{CNs(n)} \Rightarrow CNs(n) \qquad [Nt(s(m))], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{(Sf\uparrow\blacksquare N$$
$$\square L$$
$$\boxed{\square CNs(n)} \Rightarrow CNs(n) \qquad [Nt(s(m))], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{\forall f((Sf\uparrow\blacksquare$$
$$[Nt(s(m))], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{\forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs(n)}, \square CNs(n)]$$
$$[Nt(s(m))], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs($$
$$[Nt(s(m))], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\boxed{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs($$
$$[1], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \square CNs(n)], \square(\langle\rangle\exists$$
$$\boxed{CNs(m)} \Rightarrow CNs(m) \qquad [\boxed{(Sf\uparrow Nt(s(m)))\downarrow Sf}], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g$$
$$\square L$$
$$\boxed{\square CNs(m)} \Rightarrow CNs(m) \qquad [\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)}], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s$$
$$[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)/CNs(m)}, \square CNs(m)], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))$$
$$[\boxed{\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs(m)], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g$$
$$[\boxed{\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs(m)], \square((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\square Sf)), \blacksquare(CPthat/\square Sf), [\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g$$

$\forall C[(\check{}man\ C) \rightarrow \exists G[(\check{}fish\ G) \wedge (Pres\ ((\check{}believe\ \hat{}(Pres\ (\check{}walk\ G)))\ C))]]$

$$\boxed{Nt(s(n))} \Rightarrow Nt(s(n))$$
$$\blacksquare L$$
$$\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))$$
$$\exists R$$
$$\blacksquare Nt(s(n)) \Rightarrow \boxed{\exists g Nt(s(g))}$$
$$\langle\rangle R$$
$$[\blacksquare Nt(s(n))] \Rightarrow \boxed{\langle\rangle\exists g Nt(s(g))} \qquad \boxed{Sf} \Rightarrow Sf$$
$$\backslash L$$
$$[\blacksquare Nt(s(n))], \boxed{\langle\rangle\exists g Nt(s(g))\backslash Sf} \Rightarrow Sf$$
$$\Box L$$
$$[\blacksquare Nt(s(n))], \boxed{\Box(\langle\rangle\exists g Nt(s(g))\backslash Sf)} \Rightarrow Sf$$
$$\uparrow R$$
$$[1], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf{\uparrow}\blacksquare Nt(s(n)) \qquad \boxed{Sf} \Rightarrow Sf$$
$$\downarrow L$$
$$[\boxed{(Sf{\uparrow}\blacksquare Nt(s(n))){\downarrow}Sf}], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$$\forall L$$
$$\boxed{CNs(n)} \Rightarrow CNs(n) \quad \Box L \quad \boxed{\Box CNs(n)} \Rightarrow CNs(n) \qquad [\boxed{\forall f((Sf{\uparrow}\blacksquare Nt(s(n))){\downarrow}Sf)}], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$$/L$$
$$[\boxed{\forall f((Sf{\uparrow}\blacksquare Nt(s(n))){\downarrow}Sf)/CNs(n)}, \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$$\forall L$$
$$[\boxed{\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g))}, \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$$\blacksquare L$$
$$[\boxed{\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g))}, \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf$$
$$\Box R$$
$$[\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow \Box Sf \qquad \boxed{CPthat} \Rightarrow CPthat$$
$$/$$
$$\boxed{CPthat/\Box Sf}, [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat$$
$$\blacksquare L$$
$$\boxed{\blacksquare(CPthat/\Box Sf)}, [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CPthat$$
$$\sqcup R$$
$$\blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n)], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow \boxed{CPthat\sqcup\Box Sf}$$
$$[Nt(s(m))], \boxed{(\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf)}, \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box$$
$$[Nt(s(m))], \boxed{\Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf))}, \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g))$$
$$[1], \Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g)), \Box CNs(n$$
$$\boxed{CNs(m)} \Rightarrow CNs(m) \qquad [\boxed{(Sf{\uparrow}Nt(s(m))){\downarrow}Sf}], \Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt$$
$$\Box L$$
$$\boxed{\Box CNs(m)} \Rightarrow CNs(m) \qquad [\boxed{\forall f((Sf{\uparrow}Nt(s(m))){\downarrow}Sf)}], \Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare$$
$$[\boxed{\forall f((Sf{\uparrow}Nt(s(m))){\downarrow}Sf)/CNs(m)}, \Box CNs(m)], \Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs(g$$
$$[\boxed{\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g))}, \Box CNs(m)], \Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CNs$$
$$[\boxed{\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g))}, \Box CNs(m)], \Box((\langle\rangle\exists g Nt(s(g))\backslash Sf)/(CPthat\sqcup\Box Sf)), \blacksquare(CPthat/\Box Sf), [\blacksquare\forall g(\forall f((Sf{\uparrow}\blacksquare Nt(s(g))){\downarrow}Sf)/CN$$

$\forall C[(\check{}man\ C) \to (Pres\ ((\check{}believe\ \hat{}\exists J[(\check{}fish\ J) \wedge (Pres\ (\check{}walk\ J))])\ C))]$

(dwp((7-57))) **[every+fish+such+that+[it]+walks]+talks** : Sf

$[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \to (B\ C)], \Box CNs(n) : fish, \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))) : \lambda D\lambda E\lambda F[(E\ F)\wedge (D\ F)], [\blacksquare\forall f\forall a((((\langle\rangle Na\backslash Sf){\uparrow}\blacksquare Nt(s(n))){\downarrow}(\blacksquare(\langle\rangle Na\backslash Sf)|\blacksquare Nt(s(n)))) : \lambda GG], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda H(Pres\ (\check{}walk\ H))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda I(Pres\ (\check{}talk\ I)) \Rightarrow Sf$

$[\blacksquare\forall g(\forall f((Sf{\uparrow}Nt(s(g))){\downarrow}Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \to (B\ C)], \Box CNs(n) : fish, \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))) : \lambda D\lambda E\lambda F[(E\ F)\wedge (D\ F)], [\blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf)) : \lambda GG], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda H(Pres\ (\check{}walk\ H))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) : \hat{}\lambda I(Pres\ (\check{}talk\ I)) \Rightarrow Sf$

$$Nt(s(n)) \Rightarrow Nt(s(n))$$
$\exists R$
$$Nt(s(n)) \Rightarrow \exists g Nt(s(g))$$
$\langle\rangle R$
$$[Nt(s(n))] \Rightarrow \langle\rangle\exists g Nt(s(g)) \qquad Sf \Rightarrow Sf$$
$\backslash L$
$$[Nt(s(n))], \langle\rangle\exists g Nt(s(g))\backslash Sf \Rightarrow Sf$$
$\square L$
$$[Nt(s(n))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf \qquad Sf \Rightarrow Sf$$
$\langle\rangle L \qquad \blacksquare L$
$$\langle\rangle Nt(s(n)), \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf \qquad \blacksquare Sf \Rightarrow Sf$$
$\backslash R \qquad |R$
$$\square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow \langle\rangle Nt(s(n))\backslash Sf \qquad \blacksquare Sf|\blacksquare Nt(s(n)) \Rightarrow \blacksquare Sf|\blacksquare Nt(s(n))$$
$/L$
$$(\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf), \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf|\blacksquare Nt(s(n))$$
$\forall L$
$$\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf)), \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf|\blacksquare Nt(s(n)) \qquad CNs(n) \Rightarrow CNs(n)$$
$[]^{-1}L \qquad \square L$
$$[[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf|\blacksquare Nt(s(n)) \qquad \square CNs(n) \Rightarrow CNs(n) \qquad CNs(n) \Rightarrow CNs(n)$$
$\blacksquare L \qquad \backslash L$
$$[\blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf|\blacksquare Nt(s(n)) \qquad \square CNs(n), CNs(n)\backslash CNs(n) \Rightarrow CNs(n)$$
$/L$
$$\square CNs(n), (CNs(n)\backslash CNs(n))/(Sf|\blacksquare Nt(s(n))), [\blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CNs(n)$$
$\forall L$
$$\square CNs(n), \forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CNs(n)$$
$\blacksquare L$
$$\square CNs(n), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf))], \square(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow CNs(n)$$
$$[\ \forall f((Sf\uparrow Nt(s(n)))\downarrow Sf)/CNs(n), \square CNs(n), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf))], \square(\langle\rangle\exists$$
$$[\ \forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \square CNs(n), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf))], \square(\langle$$
$$[\ \blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \square CNs(n), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf))], \square($$

$\forall C[[(\check{}fish\ C) \wedge (Pres\ (\check{}walk\ C))] \rightarrow (Pres\ (\check{}talk\ C))]$

(dwp((7-60, 62))) **[john]+seeks+a+unicorn** : Sf

$[\blacksquare Nt(s(m)) : j], \square(((\langle\rangle\exists g Nt(s(g))\backslash Sf)/\square\forall a\forall f(((Na\backslash Sf)/\exists b Nb)\backslash(Na\backslash Sf))) : \hat{}\lambda A\lambda B((\check{}tries\ \hat{}((\check{}A\ \check{}find)\ B))\ B), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda C\lambda D\exists E[(C\ E) \wedge (D\ E)], \square CNs(n) : unicorn \Rightarrow Sf$

$$\dfrac{\dfrac{\dfrac{Nt(s(n)) \Rightarrow Nt(s(n))}{\blacksquare Nt(s(n)) \Rightarrow Nt(s(n))}\,\blacksquare L}{\blacksquare Nt(s(n)) \Rightarrow \exists bNb}\,\exists R \qquad \dfrac{N5 \Rightarrow N5 \qquad S6 \Rightarrow S6}{N5, N5\backslash S6 \Rightarrow S6}\,\backslash L}{N5, (N5\backslash S6)/\exists bNb, \blacksquare Nt(s(n)) \Rightarrow S6}\,/L$$

$$\dfrac{N5, (N5\backslash S6)/\exists bNb, \blacksquare Nt(s(n)) \Rightarrow S6}{(N5\backslash S6)/\exists bNb, \blacksquare Nt(s(n)) \Rightarrow N5\backslash S6}\,\backslash R$$

$$\dfrac{(N5\backslash S6)/\exists bNb, \blacksquare Nt(s(n)) \Rightarrow N5\backslash S6}{\blacksquare Nt(s(n)) \Rightarrow ((N5\backslash S6)/\exists bNb)\backslash(N5\backslash S6)}\,\backslash R$$

$$\dfrac{\blacksquare Nt(s(n)) \Rightarrow ((N5\backslash S6)/\exists bNb)\backslash(N5\backslash S6)}{\blacksquare Nt(s(n)) \Rightarrow \forall f(((N5\backslash Sf)/\exists bNb)\backslash(N5\backslash Sf))}\,\forall R$$

$$\dfrac{\blacksquare Nt(s(n)) \Rightarrow \forall f(((N5\backslash Sf)/\exists bNb)\backslash(N5\backslash Sf))}{\blacksquare Nt(s(n)) \Rightarrow \forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))}\,\forall R$$

$$\dfrac{\blacksquare Nt(s(n)) \Rightarrow \forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))}{\blacksquare Nt(s(n)) \Rightarrow \Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))}\,\Box R$$

$$\dfrac{\dfrac{\dfrac{\dfrac{Nt(s(m)) \Rightarrow Nt(s(m))}{\blacksquare Nt(s(m)) \Rightarrow Nt(s(m))}\,\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \exists gNt(s(g))}\,\exists R}{[\blacksquare Nt(s(m))] \Rightarrow \langle\rangle\exists gNt(s(g))}\,\langle\rangle R \qquad Sf \Rightarrow Sf}{[\blacksquare Nt(s(m))], \langle\rangle\exists gNt(s(g))\backslash Sf \Rightarrow Sf}\,\backslash L$$

$$\dfrac{\blacksquare Nt(s(n)) \Rightarrow \Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf)) \qquad [\blacksquare Nt(s(m))], \langle\rangle\exists gNt(s(g))\backslash Sf \Rightarrow Sf}{[\blacksquare Nt(s(m))], (\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf)), \blacksquare Nt(s(n)) \Rightarrow Sf}\,/L$$

$$\dfrac{[\blacksquare Nt(s(m))], (\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf)), \blacksquare Nt(s(n)) \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \blacksquare Nt(s(n)) \Rightarrow Sf}\,\Box L$$

$$\dfrac{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \blacksquare Nt(s(n)) \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), 1 \Rightarrow Sf\uparrow\blacksquare Nt(s(n))}\,\uparrow R \qquad Sf \Rightarrow$$

$$[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), (Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf \Rightarrow Sf$$

$$\dfrac{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), (Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf) \Rightarrow Sf}\,\forall L$$

$$\dfrac{CNs(n) \Rightarrow CNs(n)}{\Box CNs(n) \Rightarrow CNs(n)}\,\Box L$$

$$\dfrac{\Box CNs(n) \Rightarrow CNs(n) \qquad [\blacksquare Nt(s(m))], \Box(\ldots), \forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf) \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs(n), \Box CNs(n) \Rightarrow Sf}\,/L$$

$$\dfrac{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs(n), \Box CNs(n) \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow Sf}\,\forall L$$

$$\dfrac{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow Sf}\,\blacksquare L$$

$\exists C[(\breve{}unicorn\ C) \wedge ((\breve{}tries\ \hat{}((\breve{}find\ C)\ j))\ j)]$

$$\dfrac{\dfrac{\dfrac{Nt(s(n)) \Rightarrow Nt(s(n))}{\blacksquare Nt(s(n)) \Rightarrow Nt(s(n))}\,\blacksquare L}{\blacksquare Nt(s(n)) \Rightarrow \exists bNb}\,\exists R \qquad \dfrac{N3 \Rightarrow N3 \qquad S4 \Rightarrow S4}{N3, N3\backslash S4 \Rightarrow S4}\,\backslash L}{N3, (N3\backslash S4)/\exists bNb, \blacksquare Nt(s(n)) \Rightarrow S4}\,/L$$

$$\dfrac{N3, (N3\backslash S4)/\exists bNb, \blacksquare Nt(s(n)) \Rightarrow S4}{N3, (N3\backslash S4)/\exists bNb, 1 \Rightarrow S4\uparrow\blacksquare Nt(s(n))}\,\uparrow R$$

$$\dfrac{N3, (N3\backslash S4)/\exists bNb, 1 \Rightarrow S4\uparrow\blacksquare Nt(s(n)) \qquad S4 \Rightarrow S4}{N3, (N3\backslash S4)/\exists bNb, (S4\uparrow\blacksquare Nt(s(n)))\downarrow S4 \Rightarrow S4}\,\downarrow L$$

$$\dfrac{N3, (N3\backslash S4)/\exists bNb, (S4\uparrow\blacksquare Nt(s(n)))\downarrow S4 \Rightarrow S4}{N3, (N3\backslash S4)/\exists bNb, \forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf) \Rightarrow S4}\,\forall L$$

$$\dfrac{CNs(n) \Rightarrow CNs(n)}{\Box CNs(n) \Rightarrow CNs(n)}\,\Box L$$

$$\dfrac{\Box CNs(n) \Rightarrow CNs(n) \qquad N3, (N3\backslash S4)/\exists bNb, \forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf) \Rightarrow S4}{N3, (N3\backslash S4)/\exists bNb, \forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs(n), \Box CNs(n) \Rightarrow S4}\,/L$$

$$\dfrac{N3, (N3\backslash S4)/\exists bNb, \forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs(n), \Box CNs(n) \Rightarrow S4}{N3, (N3\backslash S4)/\exists bNb, \forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow S4}\,\forall L$$

$$\dfrac{N3, (N3\backslash S4)/\exists bNb, \forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow S4}{N3, (N3\backslash S4)/\exists bNb, \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow S4}\,\blacksquare L$$

$$\dfrac{N3, (N3\backslash S4)/\exists bNb, \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow S4}{(N3\backslash S4)/\exists bNb, \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow N3\backslash S4}\,\backslash R$$

$$\dfrac{(N3\backslash S4)/\exists bNb, \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow N3\backslash S4}{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow ((N3\backslash S4)/\exists bNb)\backslash(N3\backslash S4)}\,\backslash R$$

$$\dfrac{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow ((N3\backslash S4)/\exists bNb)\backslash(N3\backslash S4)}{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow \forall f(((N3\backslash Sf)/\exists bNb)\backslash(N3\backslash Sf))}\,\forall R$$

$$\dfrac{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow \forall f(((N3\backslash Sf)/\exists bNb)\backslash(N3\backslash Sf))}{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow \forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))}\,\forall R$$

$$\dfrac{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow \forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))}{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow \Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))}\,\Box R$$

$$\dfrac{\dfrac{\dfrac{\dfrac{Nt(s(m)) \Rightarrow Nt(s(m))}{\blacksquare Nt(s(m)) \Rightarrow Nt(s(m))}\,\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \exists gNt(s(g))}\,\exists R}{[\blacksquare Nt(s(m))] \Rightarrow \langle\rangle\exists gNt(s(g))}\,\langle\rangle R \qquad Sf \Rightarrow}{[\blacksquare Nt(s(m))], \langle\rangle\exists gNt(s(g))\backslash Sf \Rightarrow Sf}$$

$$\dfrac{\ldots}{[\blacksquare Nt(s(m))], (\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf)), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow Sf}\,/$$

$$\dfrac{[\blacksquare Nt(s(m))], (\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf)), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box\forall a\forall f(((Na\backslash Sf)/\exists bNb)\backslash(Na\backslash Sf))), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(n) \Rightarrow Sf}\,\Box L$$

$((\check{}tries\ \hat{}\exists G[(\check{}unicorn\ G) \wedge ((\check{}find\ G)\ j)])\ j)$

(dwp((7-73))) **[john]+is+bill** : Sf

$[\blacksquare Nt(s(m)) : j], \blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))) : \lambda A\lambda B(Pres\ (A \rightarrow C.[B = C]; D.((D\ \lambda E[E = B])\ B))), \blacksquare Nt(s(m)) : b \ \Rightarrow\ Sf$

$$\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{}{\boxed{Nt(s(m))} \Rightarrow Nt(s(m))}}{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists aNa}}\exists R}{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I)}}\oplus R \quad \dfrac{\dfrac{\dfrac{\dfrac{\dfrac{}{\boxed{Nt(s(m))} \Rightarrow Nt(s(m))}}{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists gNt(s(g))}}\exists R}{[\blacksquare Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists gNt(s(g))}}\langle\rangle R \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}}{[\blacksquare Nt(s(m))], \boxed{\langle\rangle\exists gNt(s(g))\backslash Sf} \Rightarrow Sf}\backslash L}{[\blacksquare Nt(s(m))], \boxed{(\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))}, \blacksquare Nt(s(m)) \Rightarrow Sf}/L}{[\blacksquare Nt(s(m))], \boxed{\blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I)))}, \blacksquare Nt(s(m)) \Rightarrow Sf}\blacksquare L$$

$(Pres\ [j = b])$

(dwp((7-76))) **[john]+is+a+man** : Sf

$[\blacksquare Nt(s(m)) : j], \blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))) : \lambda A\lambda B(Pres\ (A \rightarrow C.[B = C]; D.((D\ \lambda E[E = B])\ B))), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda F\lambda G\exists H[(F\ H) \wedge (G\ H)], \Box CNs(m) : man \ \Rightarrow\ Sf$

$$\dfrac{\dfrac{\dfrac{\dfrac{}{\boxed{CNs(m)} \Rightarrow CNs(m)}}{\boxed{\Box CNs(m)} \Rightarrow CNs(m)}\Box L \quad \dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{}{\boxed{Nt(s(m))} \Rightarrow Nt(s(m))}}{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists aNa}}\exists R}{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I)}}\oplus R \quad \dfrac{\dfrac{\dfrac{\dfrac{\dfrac{}{\boxed{Nt(s(m))} \Rightarrow Nt(s(m))}}{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists gNt(s(g))}}\exists R}{[\blacksquare Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists gNt(s(g))}}\langle\rangle R \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}}{[\blacksquare Nt(s(m))], \boxed{\langle\rangle\exists gNt(s(g))\backslash Sf} \Rightarrow Sf}\backslash L}{[\blacksquare Nt(s(m))], \boxed{(\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))}, \blacksquare Nt(s(m)) \Rightarrow Sf}/L}{[\blacksquare Nt(s(m))], \boxed{\blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I)))}, \blacksquare Nt(s(m)) \Rightarrow Sf}\blacksquare L}{[\blacksquare Nt(s(m))], \blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))), 1 \Rightarrow Sf\uparrow\blacksquare Nt(s(m))}\uparrow R \quad \dfrac{}{\boxed{Sf}}}{[\blacksquare Nt(s(m))], \blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))), \boxed{(Sf\uparrow\blacksquare Nt(s(m)))\downarrow Sf} \Rightarrow Sf}}{[\blacksquare Nt(s(m))], \blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))), \boxed{\forall f((Sf\uparrow\blacksquare Nt(s(m)))\downarrow Sf)} \Rightarrow Sf}}{[\blacksquare Nt(s(m))], \blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))), \boxed{\forall f((Sf\uparrow\blacksquare Nt(s(m)))\downarrow Sf)/CNs(m)}, \Box CNs(m) \Rightarrow Sf}}{[\blacksquare Nt(s(m))], \blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))), \boxed{\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m) \Rightarrow Sf}\forall L}{[\blacksquare Nt(s(m))], \blacksquare((\langle\rangle\exists gNt(s(g))\backslash Sf)/(\exists aNa\oplus(\exists g((CNg/CNg)\sqcup(CNg\backslash CNg))-I))), \boxed{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m) \Rightarrow Sf}\blacksquare L$$

$\exists C[(\check{}man\ C) \wedge (Pres\ [j = C])]$

(dwp((7-83))) **necessarily+[john]+walks** : Sf

$\blacksquare(SA/\Box SA) : Nec, [\blacksquare Nt(s(m)) : j], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda B(Pres\ (\check{}walk\ B)) \ \Rightarrow\ Sf$

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     \dfrac{\dfrac{\dfrac{\dfrac{}{\boxed{Nt(s(m))} \Rightarrow Nt(s(m))}}{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \boxed{\exists gNt(s(g))}}\exists R}{[\blacksquare Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists gNt(s(g))}}\langle\rangle R
     \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}
    }{[\blacksquare Nt(s(m))], \boxed{\langle\rangle\exists gNt(s(g))\backslash Sf} \Rightarrow Sf}\backslash L
   }{[\blacksquare Nt(s(m))], \boxed{\Box(\langle\rangle\exists gNt(s(g))\backslash Sf)} \Rightarrow Sf}\Box L
  }{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow \Box Sf}\Box R
  \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}
 }{\boxed{Sf/\Box Sf}, [\blacksquare Nt(s(m))], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow Sf}/L
}{\boxed{\blacksquare(Sf/\Box Sf)}, [\blacksquare Nt(s(m))], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow Sf}\blacksquare L
$$

(*Nec* ˆ(*Pres* (˘*walk j*)))

(dwp((7-86))) **[john]+walks+slowly** : Sf

$[\blacksquare Nt(s(m)) : j], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda A(Pres\ (\breve{}walk\ A)), \Box\forall a\forall f(\Box(\langle\rangle Na\backslash Sf)\backslash(\langle\rangle\Box Na\backslash Sf)) : \hat{}\lambda B\lambda C(\breve{}slowly\ \hat{}(\breve{}B\ \breve{}C)) \Rightarrow Sf$

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        \dfrac{\dfrac{\dfrac{}{Nt(s(m)) \Rightarrow Nt(s(m))}}{Nt(s(m)) \Rightarrow \boxed{\exists gNt(s(g))}}\exists R}{[Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists gNt(s(g))}}\langle\rangle R
        \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}
       }{[Nt(s(m))], \boxed{\langle\rangle\exists gNt(s(g))\backslash Sf} \Rightarrow Sf}\backslash L
      }{[Nt(s(m))], \boxed{\Box(\langle\rangle\exists gNt(s(g))\backslash Sf)} \Rightarrow Sf}\Box L
     }{\langle\rangle Nt(s(m)), \Box(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow Sf}\langle\rangle L
    }{\Box(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow \langle\rangle Nt(s(m))\backslash Sf}\backslash R
   }{\Box(\langle\rangle\exists gNt(s(g))\backslash Sf) \Rightarrow \Box(\langle\rangle Nt(s(m))\backslash Sf)}\Box R
   \quad
   \dfrac{
    \dfrac{\dfrac{\dfrac{\dfrac{}{\boxed{Nt(s(m))} \Rightarrow Nt(s(m))}}{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \Box Nt(s(m))}\Box R}{[\blacksquare Nt(s(m))] \Rightarrow \boxed{\langle\rangle\Box Nt(s(m))}}\langle\rangle R
    \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}
   }{[\blacksquare Nt(s(m))], \boxed{\langle\rangle\Box Nt(s(m))\backslash Sf} \Rightarrow Sf}\backslash L
  }{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{\Box(\langle\rangle Nt(s(m))\backslash Sf)\backslash(\langle\rangle\Box Nt(s(m))\backslash Sf)} \Rightarrow Sf}\backslash L
 }{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{\forall f(\Box(\langle\rangle Nt(s(m))\backslash Sf)\backslash(\langle\rangle\Box Nt(s(m))\backslash Sf))} \Rightarrow Sf}\forall L
}{
 \dfrac{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{\forall a\forall f(\Box(\langle\rangle Na\backslash Sf)\backslash(\langle\rangle\Box Na\backslash Sf))} \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf), \boxed{\Box\forall a\forall f(\Box(\langle\rangle Na\backslash Sf)\backslash(\langle\rangle\Box Na\backslash Sf))} \Rightarrow Sf}\Box L
}\forall L
$$

(˘*slowly* ˆ(*Pres* (˘*walk j*)))

(dwp((7-91))) **[john]+tries+to+walk** : Sf

$[\blacksquare Nt(s(m)) : j], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box(\langle\rangle\exists gNt(s(g))\backslash Si)) : \hat{}\lambda A\lambda B((\breve{}tries\ \hat{}(\breve{}A\ B))\ B), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))) : \lambda CC, \Box(\langle\rangle\exists aNa\backslash Sb) : \hat{}\lambda D(\breve{}walk\ D) \Rightarrow Sf$

$$\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{Nt(s(2)) \Rightarrow Nt(s(2))}{Nt(s(2)) \Rightarrow \exists aNa}\exists R}{[Nt(s(2))] \Rightarrow \langle\rangle\exists aNa}\langle\rangle R \quad Sb \Rightarrow Sb}{[Nt(s(2))], \langle\rangle\exists aNa\backslash Sb \Rightarrow Sb}\backslash L}{[Nt(s(2))], \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sb}\Box L}{\langle\rangle Nt(s(2)), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sb}\langle\rangle L}{\Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow \langle\rangle Nt(s(2))\backslash Sb}\backslash R \quad \dfrac{\dfrac{\dfrac{Nt(s(2)) \Rightarrow Nt(s(2))}{[Nt(s(2))] \Rightarrow \langle\rangle Nt(s(2))}\langle\rangle R \quad Si \Rightarrow Si}{[Nt(s(2))], \langle\rangle Nt(s(2))\backslash Si \Rightarrow Si}\backslash L}{[Nt(s(2))], (\langle\rangle Nt(s(2))\backslash Si)/(\langle\rangle Nt(s(2))\backslash Sb), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Si}/L}{[Nt(s(2))], \forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb)), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Si}\forall L}{[Nt(s(2))], (PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb)), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Si}\sqcap L}{[Nt(s(2))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Si}\blacksquare L}{[\exists gNt(s(g))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Si}\exists L}{\langle\rangle\exists gNt(s(g)), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Si}\langle\rangle L}{\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow \langle\rangle\exists gNt(s(g))\backslash Si}\backslash R$$

$$\dfrac{\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow \langle\rangle\exists gNt(s(g))\backslash Si}{\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow \Box(\langle\rangle\exists gNt(s(g))\backslash Si)}\Box R$$

$$\dfrac{\dfrac{\dfrac{\dfrac{Nt(s(m)) \Rightarrow Nt(s(m))}{\blacksquare Nt(s(m)) \Rightarrow Nt(s(m))}\blacksquare L}{\blacksquare Nt(s(m)) \Rightarrow \exists gNt(s(g))}\exists R}{[\blacksquare Nt(s(m))] \Rightarrow \langle\rangle\exists gNt(s(g))}\langle\rangle R \quad Sf \Rightarrow Sf}{[\blacksquare Nt(s(m))], \langle\rangle\exists gNt(s(g))\backslash Sf \Rightarrow Sf}\backslash L$$

$$\dfrac{\dfrac{\ldots \quad \ldots}{[\blacksquare Nt(s(m))], (\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box(\langle\rangle\exists gNt(s(g))\backslash Si), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf}/L}{[\blacksquare Nt(s(m))], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box(\langle\rangle\exists gNt(s(g))\backslash Si)), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf}\Box L$$

((˘*tries* ˆ(˘*walk j*)) *j*)

(dwp((7-94))) **[john]+tries+to+[[catch+a+fish+and+eat+it]]** : Sf

$[\blacksquare Nt(s(m)) : j], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box(\langle\rangle\exists gNt(s(g))\backslash Si)) : \hat{}\lambda A\lambda B((\breve{}tries\ \hat{}(\breve{}A\ B))\ B), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))) :$
$\lambda CC, [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : \hat{}\lambda D\lambda E((\breve{}catch\ D)\ E), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda F\lambda G\exists H[(F\ H)\wedge(G\ H)], \Box CNs(n) :$
$fish, \blacksquare\forall f((?\blacksquare Sf\backslash[]^{-1}[]^{-1}Sf)/\blacksquare Sf) : (\Phi^{n+}\ 0\ and), \Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : \hat{}\lambda I\lambda J((\breve{}eat\ I)\ J), \blacksquare\forall f\forall a(((\langle\rangle Na\backslash Sf)\uparrow\blacksquare Nt(s(n)))\downarrow(\blacksquare(\langle\rangle Na\backslash Sf)|\blacksquare Nt(s(n)))) :$
$\lambda KK]] \Rightarrow Sf$

$[\blacksquare Nt(s(m)) : j], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box(\langle\rangle\exists gNt(s(g))\backslash Si)) : \hat{}\lambda A\lambda B((\breve{}tries\ \hat{}(\breve{}A\ B))\ B), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))) :$
$\lambda CC, [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : \hat{}\lambda D\lambda E((\breve{}catch\ D)\ E), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda F\lambda G\exists H[(F\ H)\wedge(G\ H)], \Box CNs(n) :$
$fish, \blacksquare\forall f((?\blacksquare Sf\backslash[]^{-1}[]^{-1}Sf)/\blacksquare Sf) : (\Phi^{n+}\ 0\ and), \Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : \hat{}\lambda I\lambda J((\breve{}eat\ I)\ J), \blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash Sf)) :$
$\lambda KK]] \Rightarrow Sf$

$[\blacksquare Nt(s(m)) : j], \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box(\langle\rangle\exists gNt(s(g))\backslash Si)) : \hat{}\lambda A\lambda B((\breve{}tries\ \hat{}(\breve{}A\ B))\ B), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))) :$
$\lambda CC, [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : \hat{}\lambda D\lambda E((\breve{}catch\ D)\ E), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda F\lambda G\exists H[(F\ H)\wedge(G\ H)], \Box CNs(n) :$
$fish, \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)) : (\Phi^{n+}\ (s\ 0)\ and), \Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : \hat{}\lambda I\lambda J((\breve{}eat\ I)\ J), \blacksquare\forall f\forall a(((\langle\rangle Na\backslash Sf)\uparrow\blacksquare Nt(s(n)))\downarrow(\blacksquare(\langle\rangle Na\backslash$
$\lambda KK]] \Rightarrow Sf$

$Nt(s(4)) \Rightarrow N$

$[Nt(s(4))] \Rightarrow \boxed{\langle\rangle}$

$[Nt(s(4))], \boxed{}$

$[Nt(s(4))], \boxed{\blacksquare}$

$\langle\rangle Nt(s(4)), \blacksquare$

$\blacksquare(\langle\rangle Nt(s(4))$

$\blacksquare(\langle\rangle Nt(s(4)) \backslash$

$[N$

$Nt(s(4)) \Rightarrow Nt(s(4))$ $\exists R$

$\boxed{Nt(s(n))} \Rightarrow Nt(s(n))$ $\blacksquare L$; $Nt(s(4)) \Rightarrow \boxed{\exists aNa}$ $\langle\rangle R$

$\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))$ $\exists R$; $[Nt(s(4))] \Rightarrow \boxed{\langle\rangle \exists aNa}$; $\boxed{Sb} \Rightarrow Sb$ $\backslash L$

$\blacksquare Nt(s(n)) \Rightarrow \boxed{\exists aNa}$; $[Nt(s(4))], \boxed{\langle\rangle \exists aNa \backslash Sb} \Rightarrow Sb$ $/L$

$[Nt(s(4))], \boxed{(\langle\rangle \exists aNa \backslash Sb)/\exists aNa}, \blacksquare Nt(s(n)) \Rightarrow Sb$ $\Box L$

$[Nt(s(4))], \boxed{\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa)}, \blacksquare Nt(s(n)) \Rightarrow Sb$ $\langle\rangle L$

$\langle\rangle Nt(s(4)), \Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), \blacksquare Nt(s(n)) \Rightarrow Sb$ $\backslash R$

$\boxed{Nt(s(n))} \Rightarrow Nt(s(n))$ $\blacksquare L$

$\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), \blacksquare Nt(s(n)) \Rightarrow \langle\rangle Nt(s(4)) \backslash Sb$ $\uparrow R$; $\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))$ $\blacksquare R$

$\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), 1 \Rightarrow (\langle\rangle Nt(s(4)) \backslash Sb) \uparrow \blacksquare Nt(s(n))$; $\blacksquare Nt(s(n)) \Rightarrow \blacksquare Nt(s(n))$; $[Nt(s(4))], [[\Box((\langle\rangle \exists aNa \backslash Sb)/$

$[Nt(s(4))], [[\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare \forall a \forall f((?\blacksquare(\langle\rangle Na \backslash Sf) \backslash []^{-1}[]^{-1}(\langle\rangle Na \backslash Sf))/\blacksquare(\langle\rangle Na \backslash Sf)$

$[Nt(s(4))], [[\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare \forall a \forall f((?\blacksquare(\langle\rangle Na \backslash Sf) \backslash []^{-1}[]^{-1}(\langle\rangle Na \backslash Sf))/\blacksquare(\langle\rangle Na \backslash S$

$[Nt(s(4))], [[\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare \forall a \forall f((?\blacksquare(\langle\rangle Na \backslash Sf) \backslash []^{-1}[]^{-1}(\langle\rangle Na \backslash Sf))/\blacksquare(\langle\rangle Na \backslash Sf$

$[Nt(s(4))], [[\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare \forall a \forall f((?\blacksquare(\langle\rangle Na \backslash Sf) \backslash []^{-1}[]^{-1}(\langle\rangle Na \backslash Sf))/\blacksquare(\langle\rangle Na \backslash Sf)$

$\langle\rangle Nt(s(4)), [[\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare \forall a \forall f((?\blacksquare(\langle\rangle Na \backslash Sf) \backslash []^{-1}[]^{-1}(\langle\rangle Na \backslash Sf))/\blacksquare(\langle\rangle Na \backslash Sf$

$[[\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare \forall a \forall f((?\blacksquare(\langle\rangle Na \backslash Sf) \backslash []^{-1}[]^{-1}(\langle\rangle Na \backslash Sf))/\blacksquare(\langle\rangle Na \backslash Sf)), \Box((\langle\rangle \exists a$

$[Nt(s(4))], \boxed{(\langle\rangle Nt(s(4)) \backslash Si)/(\langle\rangle Nt(s(4)) \backslash Sb)}, [[\Box((\langle\rangle \exists aNa \backslash S$

$[Nt(s(4))], \boxed{\forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))}, [[\Box((\langle\rangle \exists aNa \backslash Sb)/$

$[Nt(s(4))], \boxed{(PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))}, [[\Box((\langle\rangle \exists a$

$[Nt(s(4))], \boxed{\blacksquare((PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb)))}, [[\Box((\langle\rangle \exists$

$[\exists gNt(s(g))], \blacksquare((PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))), [[\Box((\langle\rangle \exists$

$\langle\rangle \exists gNt(s(g)), \blacksquare((PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))), [[\Box((\langle\rangle \exists$

$\blacksquare((PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))), [[\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aN$

$\blacksquare((PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))), [[\Box((\langle\rangle \exists aNa \backslash Sb)/\exists aNa$

$[\blacksquare Nt(s(m))], \boxed{(\langle\rangle \exists gNt(s(g)) \backslash Sf)/\Box(\langle\rangle \exists gN}$

$[\blacksquare Nt(s(m))], \boxed{\Box((\langle\rangle \exists gNt(s(g)) \backslash Sf)/\Box(\langle\rangle \exists gN}$

$[\blacksquare Nt(s(m))], \Box((\langle\rangle \exists gNt(s(g)) \backslash Sf)/\Box(\langle\rangle \exists gNt$

$\boxed{CNs(n)} \Rightarrow CNs(n)$ $\Box L$; $[\blacksquare Nt(s(m))], \Box((\langle\rangle \exists gNt(s$

$\boxed{\Box CNs(n)} \Rightarrow CNs(n)$; $[\blacksquare Nt(s(m))], \Box((\langle\rangle \exists gNt(s(g$

$[\blacksquare Nt(s(m))], \Box((\langle\rangle \exists gNt(s(g)) \backslash Sf)/\Box(\langle\rangle \exists gNt(s(g)) \backslash Si)), \blacksquare((PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))), [[$

$[\blacksquare Nt(s(m))], \Box((\langle\rangle \exists gNt(s(g)) \backslash Sf)/\Box(\langle\rangle \exists gNt(s(g)) \backslash Si)), \blacksquare((PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))), [[\Box$

$[\blacksquare Nt(s(m))], \Box((\langle\rangle \exists gNt(s(g)) \backslash Sf)/\Box(\langle\rangle \exists gNt(s(g)) \backslash Si)), \blacksquare((PPto/\exists aNa) \sqcap \forall n((\langle\rangle Nn \backslash Si)/(\langle\rangle Nn \backslash Sb))), [[\Box($

$$\exists C[(\check{}\mathit{fish}\ C) \wedge ((\check{}\mathit{tries}\ \hat{}[((\check{}\mathit{catch}\ C)\ j) \wedge ((\check{}\mathit{eat}\ C)\ j)])\ j)]$$

$$Nt(s(2)) \Rightarrow N$$

$$[Nt(s(2))] \Rightarrow \boxed{\langle\rangle$$

$$[Nt(s(2))], \boxed{$$

$$[Nt(s(2))], \boxed{\blacksquare$$

$$\langle\rangle Nt(s(2)), \blacksquare$$

$$\blacksquare(\langle\rangle Nt(s(2))$$

$$\blacksquare(\langle\rangle Nt(s(2))\backslash$$

$$\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\boxed{Nt(s(n))} \Rightarrow Nt(s(n))}{\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))}\blacksquare L}{\blacksquare Nt(s(n)) \Rightarrow \boxed{\exists aNa}}\exists R \quad \dfrac{\dfrac{\dfrac{\dfrac{}{Nt(s(2)) \Rightarrow Nt(s(2))}}{Nt(s(2)) \Rightarrow \boxed{\exists aNa}}\exists R}{[Nt(s(2))] \Rightarrow \boxed{\langle\rangle\exists aNa}}\langle\rangle R \quad \boxed{Sb} \Rightarrow Sb}{[Nt(s(2))], \boxed{\langle\rangle\exists aNa\backslash Sb} \Rightarrow Sb}\backslash L}{[Nt(s(2))], \boxed{(\langle\rangle\exists aNa\backslash Sb)/\exists aNa}, \blacksquare Nt(s(n)) \Rightarrow Sb}/L}{[Nt(s(2))], \boxed{\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa)}, \blacksquare Nt(s(n)) \Rightarrow Sb}\Box L}{\langle\rangle Nt(s(2)), \Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)) \Rightarrow Sb}\langle\rangle L}{\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)) \Rightarrow \langle\rangle Nt(s(2))\backslash Sb}\backslash R}{\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), 1 \Rightarrow (\langle\rangle Nt(s(2))\backslash Sb)\uparrow\blacksquare Nt(s(n))}\uparrow R$$

$$\dfrac{\dfrac{\boxed{Nt(s(n))} \Rightarrow Nt(s(n))}{\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))}\blacksquare L}{\blacksquare Nt(s(n)) \Rightarrow \blacksquare Nt(s(n))}\blacksquare R$$

$$[Nt(s(2))], [[\Box((\langle\rangle\exists aNa\backslash Sb)/$$

$$[Nt(s(2))], [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)$$

$$[Nt(s(2))], [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash S$$

$$[Nt(s(2))], [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf$$

$$[Nt(s(2))], [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)$$

$$\langle\rangle Nt(s(2)), [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf$$

$$[[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)), \Box((\langle\rangle\exists a$$

$$[Nt(s(2))], \boxed{(\langle\rangle Nt(s(2))\backslash Si)/(\langle\rangle Nt(s(2))\backslash Sb)}, [[\Box((\langle\rangle\exists aNa\backslash S$$

$$[Nt(s(2))], \boxed{\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))}, [[\Box((\langle\rangle\exists aNa\backslash Sb)/$$

$$[Nt(s(2))], \boxed{(PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))}, [[\Box((\langle\rangle\exists a$$

$$[Nt(s(2))], \boxed{\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb)))}, [[\Box((\langle\rangle\exists$$

$$[Nt(s(2))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\Box((\langle\rangle\exists aN$$

$$[Nt(s(2))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)$$

$$\dfrac{\boxed{CNs(n)} \Rightarrow CNs(n)}{\boxed{\Box CNs(n)} \Rightarrow CNs(n)}\Box L \qquad [Nt(s(2))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle$$

$$[Nt(s(2))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \boxed{\forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs$$

$$[Nt(s(2))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \boxed{\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CN$$

$$[Nt(s(2))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \boxed{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/C$$

$$[\exists gNt(s(g))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/C$$

$$\langle\rangle\exists gNt(s(g)), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/C$$

$$\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CN$$

$$\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\Box((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs($$

$$[\blacksquare Nt(s(m))], \boxed{(\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box(\langle\rangle\exists gNt(s(g))\backslash Si)}, \blacksquare((PPto/\exists aNa)\sqcap\forall n(($$

$$[\blacksquare Nt(s(m))], \boxed{\Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\Box(\langle\rangle\exists gNt(s(g))\backslash Si))}, \blacksquare((PPto/\exists aNa)\sqcap\forall n($$

$((\check{\ } tries\ \hat{\ } \exists F[(\check{\ } fish\ F) \wedge [((\check{\ } catch\ F)\ j) \wedge ((\check{\ } eat\ F)\ j)]])\ j)$

$Nt(s(2)) \Rightarrow N$

$[Nt(s(2))] \Rightarrow \boxed{\langle\rangle}$

$[Nt(s(2))], \boxed{}$

$Nt(s(2)) \Rightarrow Nt(s(2))$ $\quad [Nt(s(2))], \boxed{\blacksquare}$

$\boxed{Nt(s(n))} \Rightarrow Nt(s(n))$ $\quad Nt(s(2)) \Rightarrow \boxed{\exists aNa}$ $\exists R$ $\quad \langle\rangle Nt(s(2)), \blacksquare$

$\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))$ $\blacksquare L$ $\quad [Nt(s(2))] \Rightarrow \boxed{\langle\rangle\exists aNa}$ $\langle\rangle R$ $\quad \boxed{Sb} \Rightarrow Sb$ $\quad \blacksquare(\langle\rangle Nt(s(2))$

$\blacksquare Nt(s(n)) \Rightarrow \boxed{\exists aNa}$ $\exists R$ $\quad [Nt(s(2))], \boxed{\langle\rangle\exists aNa\backslash Sb} \Rightarrow Sb$ $\backslash L$ $\quad \blacksquare(\langle\rangle Nt(s(2))\backslash$

$[Nt(s(2))], \boxed{(\langle\rangle\exists aNa\backslash Sb)/\exists aNa}, \blacksquare Nt(s(n)) \Rightarrow Sb$ $/L$ $\quad [$

$[Nt(s(2))], \boxed{\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa)}, \blacksquare Nt(s(n)) \Rightarrow Sb$ $\square L$ $\quad \boxed{Nt(s(n))} \Rightarrow Nt(s(n))$ $\quad [Ni$

$\langle\rangle Nt(s(2)), \square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)) \Rightarrow Sb$ $\langle\rangle L$ $\quad \boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))$ $\blacksquare L$

$\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)) \Rightarrow \langle\rangle Nt(s(2))\backslash Sb$ $\backslash R$ $\quad \blacksquare Nt(s(n)) \Rightarrow \blacksquare Nt(s(n))$ $\blacksquare R$

$\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), 1 \Rightarrow (\langle\rangle Nt(s(2))\backslash Sb)\uparrow\blacksquare Nt(s(n))$ $\uparrow R$ $\quad [Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/$

$[Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)$

$[Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash S$

$[Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf$

$[Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare Nt(s(n)), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)$

$[Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), 1, \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)), \square((\langle\rangle\exists$

$\boxed{CNs(n)} \Rightarrow CNs(n)$ $\quad [Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \boxed{(Sb\uparrow\blacksquare Nt(s(n)))\downarrow Sb}, \blacksquare\forall a$

$\boxed{\square CNs(n)} \Rightarrow CNs(n)$ $\square L$ $\quad [Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \boxed{\forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)}, \blacksquare$

$[Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \boxed{\forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs(n)}, \square CNs(n), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf$

$[Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \boxed{\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs(n), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash$

$[Nt(s(2))], [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \boxed{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \square CNs(n), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na$

$\langle\rangle Nt(s(2)), [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \square CNs(n), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash$

$[[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)), \square CNs(n), \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle N$

$[Nt(s(2))], \boxed{(\langle\rangle Nt(s(2))\backslash Si)/(\langle\rangle Nt(s(2))\backslash Sb)}, [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((S$

$[Nt(s(2))], \boxed{\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))}, [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow$

$[Nt(s(2))], \boxed{(PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))}, [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g($

$[Nt(s(2))], \boxed{\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb)))}, [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g$

$[\exists gNt(s(g))], \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g$

$\langle\rangle\exists gNt(s(g)), \blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g$

$\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt$

$\blacksquare((PPto/\exists aNa)\sqcap\forall n((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))), [[\square((\langle\rangle\exists aNa\backslash Sb)/\exists aNa), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s$

$[\blacksquare Nt(s(m))], \boxed{(\langle\rangle\exists gNt(s(g))\backslash Sf)/\square(\langle\rangle\exists gNt(s(g))\backslash Si)}, \blacksquare((PPto/$

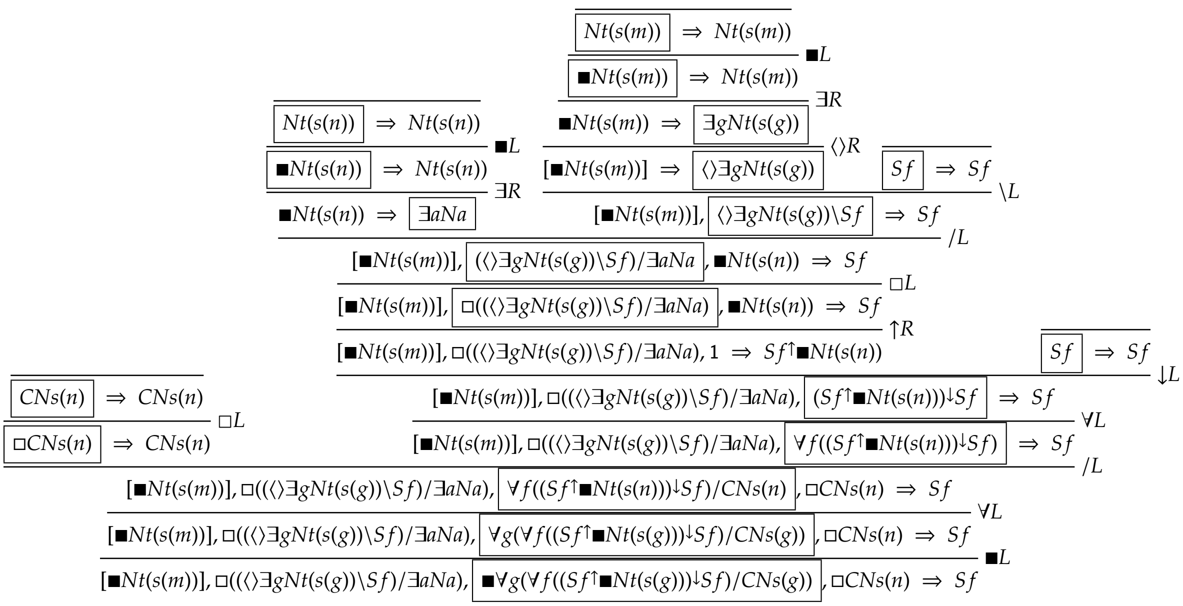
$[\blacksquare Nt(s(m))], \boxed{\square((\langle\rangle\exists gNt(s(g))\backslash Sf)/\square(\langle\rangle\exists gNt(s(g))\backslash Si))}, \blacksquare((PPt$

$((\check{}tries\ \hat{}\exists H[(\check{}fish\ H) \wedge [((\check{}catch\ H)\ j) \wedge ((\check{}eat\ H)\ j)]])\ j)$

$[\blacksquare Nt(s(m)) : j], \square(((\langle\rangle\exists gNt(s(g))\backslash Sf)/\square(\langle\rangle\exists gNt(s(g))\backslash Si)) : \hat{}\lambda A\lambda B((\check{}tries\ \hat{}(\check{}A\ B))\ B), \blacksquare((PPto/\exists aNa)\sqcap\forall n(((\langle\rangle Nn\backslash Si)/(\langle\rangle Nn\backslash Sb))) :$
$\lambda CC, [[\square(((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : \hat{}\lambda D\lambda E((\check{}catch\ D)\ E), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda F\lambda G\exists H[(F\ H)\wedge(G\ H)], \square CNs(n) :$
$fish, \blacksquare\forall a\forall f((?\blacksquare(\langle\rangle Na\backslash Sf)\backslash[]^{-1}[]^{-1}(\langle\rangle Na\backslash Sf))/\blacksquare(\langle\rangle Na\backslash Sf)) : (\Phi^{n+}\ (s\ 0)\ and), \square(((\langle\rangle\exists aNa\backslash Sb)/\exists aNa) : \hat{}\lambda I\lambda J((\check{}eat\ I)\ J), \blacksquare[]^{-1}\forall f((\blacksquare Sf|\blacksquare Nt(s(n)))/(\langle\rangle Nt(s(n))\backslash S$
$\lambda KK]] \Rightarrow Sf$

(dwp((7-98))) **[john]+finds+a+unicorn** : Sf

$[\blacksquare Nt(s(m)) : j], \square(((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa) : \hat{}\lambda A\lambda B(Pres\ ((\check{}find\ A)\ B)), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda C\lambda D\exists E[(C\ E)\wedge$
$(D\ E)], \square CNs(n) : unicorn \Rightarrow Sf$



$\exists C[(\check{}unicorn\ C) \wedge (Pres\ ((\check{}find\ C)\ j))]$

(dwp((7-105))) **[every+man+such+that+[he]+loves+a+woman]+loses+her** : Sf

$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \to (B\ C)], \square CNs(m) : man, \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))) : \lambda D\lambda E\lambda F[(E\ F)\wedge$
$(D\ F)], [\blacksquare[]^{-1}\forall g((\blacksquare Sg|\blacksquare Nt(s(m)))/(\langle\rangle Nt(s(m))\backslash Sg)) : \lambda GG], \square(((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa) : \hat{}\lambda H\lambda I(Pres\ ((\check{}love\ H)\ I)), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g)) :$
$\lambda J\lambda K\exists L[(J\ L)\wedge(K\ L)], \square CNs(f) : woman], \square(((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa) : \hat{}\lambda M\lambda N(Pres\ ((\check{}lose\ M)\ N)), \blacksquare\forall g\forall a(((\langle\rangle Na\backslash Sg)\uparrow\blacksquare Nt(s(f)))\downarrow(\blacksquare(\langle\rangle Na\backslash Sg)|\blacksquare Nt(s(f)))) :$
$\lambda OO \Rightarrow Sf$

$$Nt(s(f)) \Rightarrow Nt(s(f))$$
$$\blacksquare Nt(s(f)) \ldots$$
$$\blacksquare Nt(s(f)) \ldots$$

$$\dfrac{\dfrac{\dfrac{}{\boxed{Nt(s(f))} \Rightarrow Nt(s(f))}}{\boxed{\blacksquare Nt(s(f))} \Rightarrow Nt(s(f))}\,\blacksquare L}{\blacksquare Nt(s(f)) \Rightarrow \boxed{\exists aNa}}\,\exists R \qquad \dfrac{\dfrac{\dfrac{\dfrac{}{Nt(s(m)) \Rightarrow Nt(s(m))}}{Nt(s(m)) \Rightarrow \boxed{\exists gNt(s(g))}}\,\exists R}{[Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists gNt(s(g))}}\,\langle\rangle R \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}}{[Nt(s(m))], \boxed{\langle\rangle\exists gNt(s(g))\backslash Sf} \Rightarrow Sf}\,\backslash L$$

$$\dfrac{}{[Nt(s(m))], \boxed{(\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa}, \blacksquare Nt(s(f)) \Rightarrow Sf}\,/L$$
$$\dfrac{}{[Nt(s(m))], \boxed{\Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa)}, \blacksquare Nt(s(f)) \Rightarrow Sf}\,\Box L$$
$$\dfrac{}{\langle\rangle Nt(s(m)), \Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa), \blacksquare Nt(s(f)) \Rightarrow Sf}\,\langle\rangle L$$
$$\dfrac{}{\Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa), \blacksquare Nt(s(f)) \Rightarrow \langle\rangle Nt(s(m))\backslash Sf}\,\backslash R$$
$$\dfrac{}{\Box((\langle\rangle\exists gNt(s(g))\backslash Sf)/\exists aNa), 1 \Rightarrow (\langle\rangle Nt(s(m))\backslash Sf)\uparrow\blacksquare Nt(s(f))}\,\uparrow R$$

$$\dfrac{\dfrac{}{\boxed{Nt(s(f))} \Rightarrow Nt(s(f))}}{\dfrac{\boxed{\blacksquare Nt(s(f))} \Rightarrow Nt(s(f))}{\blacksquare Nt(s(f)) \Rightarrow \blacksquare Nt(s(f))}\,\blacksquare R}\,\blacksquare L$$

$$[\blacksquare\forall g(\forall f((Sf \ldots$$

$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare]^{-1}\forall g((\blacksquare Sg|\blacksquare \ldots$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare]^{-1}\forall g((\blacksquare \ldots$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare]^{-1}\forall g((\blacksquare S \ldots$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare]^{-1}\forall g((\blacksquare Sg \ldots$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare]^{-1}\forall g((\blacksquare Sg \ldots$$

$$\dfrac{\dfrac{}{\boxed{CNs(f)} \Rightarrow CNs(f)}}{\boxed{\Box CNs(f)} \Rightarrow CNs(f)}\,\Box L$$

$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n(\ldots$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((C \ldots$$

$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare]^{-1}\forall g((\blacksquare Sg|\blacksquare Nt(s(m)))/(\langle\rangle Nt(s \ldots$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare]^{-1}\forall g((\blacksquare Sg|\blacksquare Nt(s(m)))/(\langle\rangle Nt(s(m \ldots$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m), \blacksquare\forall n((CNn\backslash CNn)/(Sf|\blacksquare Nt(n))), [\blacksquare]^{-1}\forall g((\blacksquare Sg|\blacksquare Nt(s(m)))/(\langle\rangle Nt(s(m \ldots$$

$\exists C[(\breve{}woman\ C) \wedge \forall G[[(\breve{}man\ G) \wedge (Pres\ ((\breve{}love\ C)\ G))] \rightarrow (Pres\ ((\breve{}lose\ C)\ G))]]$

(dwp((7-110))) **[john]+walks+in+a+park** : Sf

$[\blacksquare Nt(s(m)) : j], \Box(\langle\rangle\exists gNt(s(g))\backslash Sf) : \hat{}\lambda A(Pres\ (\breve{}walk\ A)), \Box(\forall a\forall f(((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists aNa) : \hat{}\lambda B\lambda C\lambda D((\breve{}in\ B)\ (C\ D)), \blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(\ldots$
$\lambda E\lambda F\exists G[(E\ G) \wedge (F\ G)], \Box CNs(n) : park \Rightarrow Sf$

$$\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{\dfrac{}{Nt(s(m)) \Rightarrow Nt(s(m))}}{Nt(s(m)) \Rightarrow \boxed{\exists g Nt(s(g))}}\exists R}{[Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists g Nt(s(g))}}\langle\rangle R \quad \dfrac{}{\boxed{Sf} \Rightarrow Sf}}{[Nt(s(m))], \boxed{\langle\rangle\exists g Nt(s(g))\backslash Sf} \Rightarrow Sf}\backslash L}{[Nt(s(m))], \boxed{\Box(\langle\rangle\exists g Nt(s(g))\backslash Sf)} \Rightarrow Sf}\Box L}{\langle\rangle Nt(s(m)), \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow Sf}\langle\rangle L}{\Box(\langle\rangle\exists g Nt(s(g))\backslash Sf) \Rightarrow \langle\rangle Nt(s(m))\backslash Sf}\backslash R}{}$$

$$\dfrac{\dfrac{\dfrac{\boxed{Nt(s(m))} \Rightarrow Nt(s(m))}{\boxed{\blacksquare Nt(s(m))} \Rightarrow Nt(s(m))}\blacksquare L}{[\blacksquare Nt(s(m))] \Rightarrow \boxed{\langle\rangle Nt(s(m))}}\langle\rangle R \quad \boxed{Sf} \ldots}{[\blacksquare Nt(s(m))], \boxed{\langle\rangle Nt(s(m))\backslash Sf} \Rightarrow S\ldots}$$

$$\dfrac{\dfrac{\dfrac{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \boxed{(\langle\rangle Nt(s(m))\backslash Sf)\backslash(\langle\rangle Nt(s(m))\backslash Sf)} \Rightarrow Sf}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \boxed{\forall f((\langle\rangle Nt(s(m))\backslash Sf)\backslash(\langle\rangle Nt(s(m))\backslash Sf))} \Rightarrow Sf}\forall L}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \boxed{\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))} \Rightarrow Sf}\forall L$$

$$\dfrac{\dfrac{\dfrac{}{\boxed{Nt(s(n))} \Rightarrow Nt(s(n))}}{\boxed{\blacksquare Nt(s(n))} \Rightarrow Nt(s(n))}\blacksquare L}{\blacksquare Nt(s(n)) \Rightarrow \boxed{\exists a Na}}\exists R$$

$$\dfrac{\dfrac{\dfrac{\ldots}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \boxed{\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists a Na}, \blacksquare Nt(s(n)) \Rightarrow Sf}/L}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \boxed{\Box(\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists a Na)}, \blacksquare Nt(s(n)) \Rightarrow Sf}\Box L}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \Box(\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists a Na), 1 \Rightarrow Sf\uparrow\blacksquare Nt(s(n))}\uparrow R$$

$$\dfrac{\ldots}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \Box(\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists a Na), \boxed{(Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf} \ldots}$$

$$[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \Box(\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists a Na), \boxed{\forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)} \ldots$$

$$\dfrac{\dfrac{}{\boxed{CNs(n)} \Rightarrow CNs(n)}}{\boxed{\Box CNs(n)} \Rightarrow CNs(n)}\Box L$$

$$\dfrac{\dfrac{\dfrac{\ldots}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \Box(\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists a Na), \boxed{\forall f((Sf\uparrow\blacksquare Nt(s(n)))\downarrow Sf)/CNs(n)}, \Box CNs(n) \Rightarrow Sf}}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \Box(\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists a Na), \boxed{\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(n) \Rightarrow Sf}\forall L}{[\blacksquare Nt(s(m))], \Box(\langle\rangle\exists g Nt(s(g))\backslash Sf), \Box(\forall a\forall f((\langle\rangle Na\backslash Sf)\backslash(\langle\rangle Na\backslash Sf))/\exists a Na), \boxed{\blacksquare\forall g(\forall f((Sf\uparrow\blacksquare Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(n) \Rightarrow Sf}\blacksquare L$$

$\exists C[(\check{}park\ C) \wedge ((\check{}in\ C)\ (Pres\ (\check{}walk\ j)))]$

(dwp((7-116, 118))) **[every+man]+doesnt+walk** : Sf

$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)) : \lambda A\lambda B\forall C[(A\ C) \rightarrow (B\ C)], \Box CNs(m) : man], \blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg) : \lambda D\neg(D\ \lambda E\lambda F(E\ F)), \Box(\langle\rangle\exists a Na\backslash Sb) : \hat{}\lambda G(\check{}walk\ G) \Rightarrow Sf$

$$Nt(s(m)) \Rightarrow Nt(s(m))$$

$$\exists R$$

$$Nt(s(m)) \Rightarrow \boxed{\exists aNa}$$

$$\langle\rangle R$$

$$[Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists aNa} \qquad \boxed{Sb} \Rightarrow Sb$$

$$\backslash L$$

$$[Nt(s(m))], \boxed{\langle\rangle\exists aNa\backslash Sb} \Rightarrow Sb$$

$$\Box L$$

$$[Nt(s(m))], \boxed{\Box(\langle\rangle\exists aNa\backslash Sb)} \Rightarrow Sb$$

$$\langle\rangle L$$

$$\langle\rangle Nt(s(m)), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sb$$

$$\backslash R$$

$$\Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow \langle\rangle Nt(s(m))\backslash Sb$$

$$Nt(s(m)) \Rightarrow Nt(s(m))$$

$$\langle\rangle R$$

$$[Nt(s(m))] \Rightarrow \boxed{\langle\rangle Nt(s(m))} \qquad \boxed{Sf} \Rightarrow Sf$$

$$\backslash L$$

$$[Nt(s(m))], \boxed{\langle\rangle Nt(s(m))\backslash Sf} \Rightarrow Sf$$

$$/L$$

$$[Nt(s(m))], \boxed{(\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb)}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\uparrow R$$

$$[Nt(s(m))], 1, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf\uparrow((\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb)) \qquad \boxed{Sf} \Rightarrow Sf$$

$$\downarrow L$$

$$[Nt(s(m))], \boxed{(Sf\uparrow((\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb)))\downarrow Sf}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\forall L$$

$$[Nt(s(m))], \boxed{\forall a((Sf\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sf)}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\forall L$$

$$[Nt(s(m))], \boxed{\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg)}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\blacksquare L$$

$$[Nt(s(m))], \boxed{\blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg)}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\uparrow R$$

$$[1], \blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf\uparrow Nt(s(m)) \qquad \boxed{Sf} \Rightarrow$$

$$[\boxed{(Sf\uparrow Nt(s(m)))\downarrow Sf}], \blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\forall L$$

$$[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)}], \blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\boxed{CNs(m)} \Rightarrow CNs(m)$$

$$\Box L$$

$$\boxed{\Box CNs(m)} \Rightarrow CNs(m)$$

$$/L$$

$$[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)/CNs(m)}, \Box CNs(m)], \blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\forall L$$

$$[\boxed{\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m)], \blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\blacksquare L$$

$$[\boxed{\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m)], \blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$\forall C[(\breve{}\mathit{man}\ C) \rightarrow \neg(\breve{}\mathit{walk}\ C)]$

$$Nt(s(m)) \Rightarrow Nt(s(m))$$
$$\exists R$$
$$Nt(s(m)) \Rightarrow \boxed{\exists aNa}$$
$$\langle\rangle R$$
$$[Nt(s(m))] \Rightarrow \boxed{\langle\rangle\exists aNa} \qquad \boxed{Sb} \Rightarrow Sb$$
$$\backslash L$$
$$[Nt(s(m))], \boxed{\langle\rangle\exists aNa\backslash Sb} \Rightarrow Sb$$
$$\Box L$$
$$[Nt(s(m))], \boxed{\Box(\langle\rangle\exists aNa\backslash Sb)} \Rightarrow Sb$$
$$\langle\rangle L$$
$$\langle\rangle Nt(s(m)), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sb$$
$$\backslash R$$
$$\Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow \langle\rangle Nt(s(m))\backslash Sb$$

$$Nt(s(m)) \Rightarrow Nt(s(m))$$
$$\langle\rangle R$$
$$[Nt(s(m))] \Rightarrow \boxed{\langle\rangle Nt(s(m))} \qquad \boxed{Sf} \Rightarrow Sf$$
$$\backslash L$$
$$[Nt(s(m))], \boxed{\langle\rangle Nt(s(m))\backslash Sf} \Rightarrow Sf$$

$$/L$$
$$[Nt(s(m))], \boxed{(\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb)}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$
$$\uparrow R$$
$$[1], (\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf\uparrow Nt(s(m)) \qquad \boxed{Sf} \Rightarrow Sf$$
$$\downarrow L$$
$$[\boxed{(Sf\uparrow Nt(s(m)))\downarrow Sf}], (\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$
$$\forall L$$
$$[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)}], (\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$$\boxed{CNs(m)} \Rightarrow CNs(m)$$
$$\Box L$$
$$\boxed{\Box CNs(m)} \Rightarrow CNs(m)$$

$$/L$$
$$[\boxed{\forall f((Sf\uparrow Nt(s(m)))\downarrow Sf)/CNs(m)}, \Box CNs(m)], (\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$
$$\forall L$$
$$[\boxed{\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m)], (\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$
$$\blacksquare L$$
$$[\boxed{\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g))}, \Box CNs(m)], (\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb), \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$
$$\uparrow R$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m)], 1, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf\uparrow((\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb)) \qquad \boxed{Sf} =$$

$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m)], \boxed{(Sf\uparrow((\langle\rangle Nt(s(m))\backslash Sf)/(\langle\rangle Nt(s(m))\backslash Sb)))\downarrow Sf}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$
$$\forall L$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m)], \boxed{\forall a((Sf\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sf)}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$
$$\forall L$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m)], \boxed{\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg)}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$
$$\blacksquare L$$
$$[\blacksquare\forall g(\forall f((Sf\uparrow Nt(s(g)))\downarrow Sf)/CNs(g)), \Box CNs(m)], \boxed{\blacksquare\forall g\forall a((Sg\uparrow((\langle\rangle Na\backslash Sf)/(\langle\rangle Na\backslash Sb)))\downarrow Sg)}, \Box(\langle\rangle\exists aNa\backslash Sb) \Rightarrow Sf$$

$\neg\forall G[(\check{}man\ G) \rightarrow (\check{}walk\ G)]$