

t39\_twoscomp  
(TMX1TxcwsRgMoPzXz8wJ2wCfU6LMVxmSPZu)

October 27, 2020

Let  $v1\_xtuple\_0 : \iota \Rightarrow o$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k15\_twoscomp : \iota$  be given. Let  $k3\_msafree2 : \iota \Rightarrow \iota$  be given. Let  $k40\_twoscomp : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_twoscomp : \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xtuple\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xtuple\_0 X1) \Rightarrow \\ & (k3\_msafree2 (k40\_twoscomp X0 X1) = k2\_tarski (k4\_tarski (k10\_finseq\_1 \\ & X0 X1) k15\_twoscomp) (k4\_tarski (k10\_finseq\_1 X0 X1) k3\_twoscomp))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (X2 = k2\_tarski X0 X1) \Leftrightarrow (\forall X3. \\ & (X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \end{aligned} \quad (2)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xtuple\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xtuple\_0 X1) \Rightarrow \\ & ((k4\_tarski (k10\_finseq\_1 X0 X1) k15\_twoscomp \in k3\_msafree2 (k40\_twoscomp \\ & X0 X1)) \wedge (k4\_tarski (k10\_finseq\_1 X0 X1) k3\_twoscomp \in k3\_msafree2 \\ & (k40\_twoscomp X0 X1)))) \end{aligned}$$