

t37_gfacirc1
(TMZuH2sVHyixzupSZCBa2MP22iMx575hK9c)

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Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_twoscomp : \iota$ be given. Let $k3_msafree2 : \iota \Rightarrow \iota$ be given. Let $k13_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_twoscomp : \iota$ be given. Let $k9_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.k3_enumset1\ X0\ X1\ X2\ X3\ X4 = k2_xboole_0\ (k2_tarski\ X0\ X1)\ (k1_enumset1\ X2\ X3\ X4) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.k3_msafree2\ (k13_gfacirc1\ X0 \\ & X1\ X2) = k2_xboole_0\ (k2_xboole_0\ (k2_xboole_0\ (k1_tarski\ (k4_tarski \\ & (k10_finseq_1\ X0\ X1)\ k14_twoscomp))\ (k1_tarski\ (k12_gfacirc1 \\ & X0\ X1\ X2)))\ (k1_enumset1\ (k4_tarski\ (k10_finseq_1\ X0\ X1)\ k2_twoscomp) \\ & (k4_tarski\ (k10_finseq_1\ X1\ X2)\ k2_twoscomp)\ (k4_tarski\ (k10_finseq_1 \\ & X2\ X0)\ k2_twoscomp)))\ (k1_tarski\ (k9_gfacirc1\ X0\ X1\ X2)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarski\ X0\ X1 = k2_xboole_0\ (k1_tarski\ X0)\ (k1_tarski\ X1) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5 = k2_xboole_0\ (k3_enumset1\ X0\ X1\ X2\ X3 \\ & X4)\ (k1_tarski\ X5) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \forall X6.(X6 = k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5) \Leftrightarrow (\forall X7.(X7 \in X6) \Leftrightarrow \\ & (\neg(X7 \neq X0) \wedge ((X7 \neq X1) \wedge ((X7 \neq X2) \wedge ((X7 \neq X3) \wedge ((X7 \neq X4) \wedge (X7 \neq X5))))))) \end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(k4_tarski\ (k10_finseq_1\ X0 \\ & X1)\ k14_twoscomp \in k3_msafree2\ (k13_gfacirc1\ X0\ X1\ X2)) \wedge ((k12_gfacirc1 \\ & X0\ X1\ X2 \in k3_msafree2\ (k13_gfacirc1\ X0\ X1\ X2)) \wedge ((k4_tarski\ (k10_finseq_1 \\ & X0\ X1)\ k2_twoscomp \in k3_msafree2\ (k13_gfacirc1\ X0\ X1\ X2)) \wedge ((k4_tarski \\ & (k10_finseq_1\ X1\ X2)\ k2_twoscomp \in k3_msafree2\ (k13_gfacirc1\ X0 \\ & X1\ X2)) \wedge ((k4_tarski\ (k10_finseq_1\ X2\ X0)\ k2_twoscomp \in k3_msafree2 \\ & (k13_gfacirc1\ X0\ X1\ X2)) \wedge (k9_gfacirc1\ X0\ X1\ X2 \in k3_msafree2\ (k13_gfacirc1 \\ & X0\ X1\ X2)))))) \end{aligned}$$