

t15_circcmb3
(TMNkyqJi3ks12s4HVtYSVu7Du35mH9wiG2x)

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Let $v4_circcmb3 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k5_circcomb : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_circcmb3 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v1_msualg_1 : \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_msualg_1 : \iota \Rightarrow \iota$ be given. Let $u2_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. k3_tarski (k1_tarski X0) = X0 \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 \\ X0))) \Rightarrow ((v8_struct_0 (k5_circcomb X1 X0)) \wedge ((\neg v11_struct_0 (k5_circcomb \\ X1 X0)) \wedge (v1_msualg_1 (k5_circcomb X1 X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. ((v4_circcmb3 X0) \wedge (l1_msualg_1 X0)) \Rightarrow (k3_circcmb3 \\ X0 = k3_tarski (u4_struct_0 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ X1))) \Rightarrow (\forall X2. ((\neg v11_struct_0 X2) \wedge ((v1_msualg_1 X2) \wedge (l1_msualg_1 \\ X2))) \Rightarrow ((X2 = k5_circcomb X0 X1) \Leftrightarrow ((u1_struct_0 X2 = k2_xboole_0 \\ (k10_xtuple_0 X1) (k1_tarski (k4_tarski X1 X0))) \wedge ((u4_struct_0 \\ X2 = k1_tarski (k4_tarski X1 X0)) \wedge ((k1_funct_1 (u1_msualg_1 X2) \\ (k4_tarski X1 X0) = X1) \wedge (k1_funct_1 (u2_msualg_1 X2) (k4_tarski \\ X1 X0) = k4_tarski X1 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarSKI X0 X1 = k2_tarSKI (k2_tarSKI X0 X1) (k1_tarSKI X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarSKI X0 X1 = k2_tarSKI X1 X0 \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v4_circcmb3 X0) \wedge (l1_msualg_1 X0)) \Rightarrow (\forall X1. \\ & ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (\forall X2. \\ & (X0 = k5_circcomb X2 X1) \Rightarrow (k3_circcmb3 X0 = k4_tarSKI X1 X2))) \end{aligned}$$