

t16_circcmb3
(TMG8UY9KWaHv6akiUmH9DE3GChUQnvZom4V)

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Let $v4_circcmb3 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $k3_msafree2 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k3_circcmb3 : \iota \Rightarrow \iota$ 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 $k2_msafree2 : \iota \Rightarrow \iota$ be given. Let $k5_circcomb : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ & X1))) \Rightarrow ((k2_msafree2 (k5_circcomb X0 X1) = k10_xtuple_0 X1) \wedge (k3_msafree2 \\ & (k5_circcomb X0 X1) = k1_tarski (k4_tarski X1 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v4_circcmb3 X0) \wedge (l1_msualg_1 X0)) \Rightarrow (\forall X1. \\ & ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (\forall X2. \\ & (X0 = k5_circcomb X2 X1) \Rightarrow (k3_circcmb3 X0 = k4_tarski X1 X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_msualg_1 X0) \Rightarrow ((v4_circcmb3 X0) \Leftrightarrow (\exists X1. (\\ & (\neg v1_xboole_0 X1) \wedge (v1_finset_1 X1)) \wedge (\exists X2. (m1_subset_1 \\ & X2 k5_numbers) \wedge (\exists X3. ((v1_relat_1 X3) \wedge ((v1_funct_1 X3) \wedge \\ & ((v3_card_1 X3 X2) \wedge (v1_finseq_1 X3)))) \wedge (\exists X4. ((v1_funct_1 \\ & X4) \wedge ((v1_funct_2 X4 (k4_finseq_2 X2 X1) X1) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k4_finseq_2 X2 X1) X1)))))) \wedge (X0 = k5_circcomb X4 X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. k4_tarski X0 X1 = k2_tarski (k2_tarski X0 \\ & X1) (k1_tarski X0) \end{aligned} \quad (4)$$

Theorem 1

$$\forall X0.((v4_circcmb3\ X0)\wedge(l1_msualg_1\ X0))\Rightarrow(k3_msafree2\ X0 = k1_tarski\ (k3_circcmb3\ X0))$$